INTRODUCTION

This is the sixth annual edition of "Facts and Figures of the Automobile Industry."

The booklet aims to compile in ready reference form the essential data on the status and development of motor transportation, including such topics as:

Production	Taxation	Service
Registration	Highways	Safety
Railroad traffic	Legislative principles	Financing
Uses of motor cars	Truck, bus, and taxi statistics	Relationship of rail, water, electric and motor transportation
Farm ownership of motor vehicles		

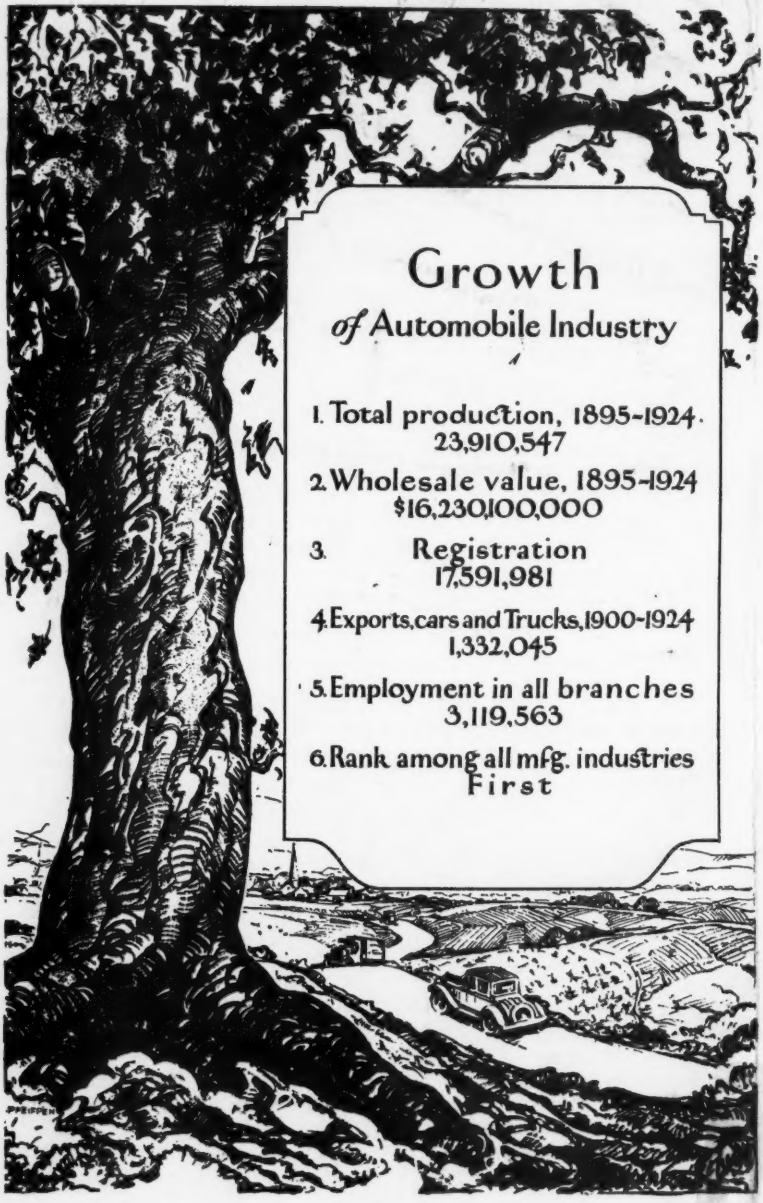
The National Automobile Chamber of Commerce, which publishes this booklet, is the trade association of car and truck manufacturers. With its predecessor association it has represented the automobile industry for 25 years.

Its purpose is to serve as a clearing house of research and information on subjects concerning motor transportation, to promote the sale and use of cars, and to represent the automobile industry in all matters where co-operative effort is proper, efficient and economical.

Its activities in such matters as standardization and in cross-licensing more than 700 patents have made for a better product and reduced manufacturing cost, with resulting savings to its members and the public.

NATIONAL AUTOMOBILE CHAMBER OF COMMERCE
MARLIN-ROCKWELL BUILDING
366 MADISON AVENUE, AT 46TH STREET, NEW YORK CITY
Detroit — General Motors Bldg. | Cable Address: Nautomerce | Washington — Transportation Bldg.

Index on Page 96



Growth
of Automobile Industry

1. Total production, 1895-1924.
23,910,547

2. Wholesale value, 1895-1924
$16,230,100,000

3. Registration
17,591,981

4. Exports, cars and Trucks, 1900-1924
1,332,045

5. Employment in all branches
3,119,563

6. Rank among all mfg. industries
First

1924
in the
Automobile Industry

Production		**3,617,602**
Number cars	3,243,285	
Number trucks	374,317	
Open cars	1,845,803	
Closed cars	1,397,482	
Per cent closed	43%	
Wholesale Value, Motor Vehicles and Parts		**$3,168,588,146**
Cars	$2,011,038,288	
Trucks	317,027,716	
Parts sold by motor vehicle manufacturers	240,308,142	
Replacement parts and tires	600,214,000	
Exports of Motor Vehicles		**386,580**
Registration		**17,591,981**
Cars	15,460,649	
Trucks	2,131,332	
Motor Vehicle Manufacturing Business:		
Capital Invested		$1,691,050,112
Wages and salaries		547,215,700
Number employed in car and truck factories		329,563
Number employed directly in the industry		2,893,563
Number employed directly and indirectly		3,119,563
Number of Motor Vehicle Dealers		**48,138**

Car and Truck Growth in Production and Registration Compared

	PRODUCTION		REGISTRATION	
	Passenger Cars	Trucks	Passenger Cars	Trucks
1895.....	4	.....	4	.....
1896.....	25	.....	16	.....
1897.....	100	.....	90	.....
1898.....	1,000	.....	800	.....
1899.....	2,500	.....	3,200	.....
1900.....	5,000	.....	8,000	.....
1901.....	7,000	.....	14,800	.....
1902.....	9,000	.....	23,000	.....
1903.....	11,235	.....	32,920	.....
1904.....	22,419	411	54,590	410
1905.....	24,550	450	77,400	600
1906.....	33,500	500	105,900	1,100
1907.....	43,300	700	140,300	1,700
1908.....	63,500	1,500	194,400	3,100
1909.....	127,731	3,255	305,950	6,050
1910.....	181,000	6,000	458,500	10,000
1911.....	199,319	10,655	619,500	20,000
1912.....	356,000	22,000	902,600	41,400
1913.....	461,500	23,500	1,194,262	63,800
1914.....	543,679	25,375	1,625,739	85,600
1915.....	818,618	74,000	2,309,666	136,000
1916.....	1,525,578	92,130	3,297,996	215,000
1917.....	1,740,792	128,157	4,657,340	326,000
1918.....	926,388	227,250	5,621,617	525,000
1919.....	1,657,652	316,364	6,771,074	794,372
1920.....	1,883,158*	322,039*	8,225,859	1,006,082
1921.....	1,514,000*	147,550*	9,346,195	1,118,520
1922.....	2,406,396*	252,668*	10,864,128	1,375,725
1923.....	3,694,237*	392,760*	13,479,608	1,612,569
1924.....	**3,243,285***	**374,317***	**15,460,649**	**2,131,332**

*Includes Canadian Production. Canadian production table is on page 9.

Production and Registration of Motor Vehicles 1895-1924

Year	Production	Per Cent Gain Over Preceding Year	Registration	Per Cent Gain Over Preceding Year
1895	4		4	
1896	25		16	
1897	100		90	
1898	1,000		800	
1899	2,500		3,200	
1900	5,000		8,000	
1901	7,000	40%	14,800	85%
1902	9,000	29%	23,000	55%
1903	11,235	25%	32,920	43%
*1904	22,830	100%	55,000	67%
1905	25,000	11%	78,000	42%
1906	34,000	36%	107,000	37%
1907	44,000	30%	142,000	33%
1908	65,000	48%	197,500	39%
*1909	130,986	100%	312,000	58%
1910	187,000	43%	468,500	50%
1911	210,000	12%	639,500	36%
1912	378,000	82%	944,000	48%
1913	485,000	28%	1,258,062	33%
*1914	569,054	18%	1,711,339	36%
1915	892,618	57%	2,445,666	43%
1916	1,617,708	81%	3,512,996	44%
§1917	1,868,949	15%	4,983,340	42%
§1918	1,153,638	—38%	6,146,617	23%
1919	1,974,016	71%	7,565,446	23%
1920	†2,205,197	12%	9,231,941	22%
1921	†1,661,550	—25%	10,463,295	13%
1922	†2,659,064	60%	12,238,375	17%
1923	†4,086,997	53%	15,092,177	23%
1924	**†3,617,602**	**—11%**	**17,591,981**	**17%**

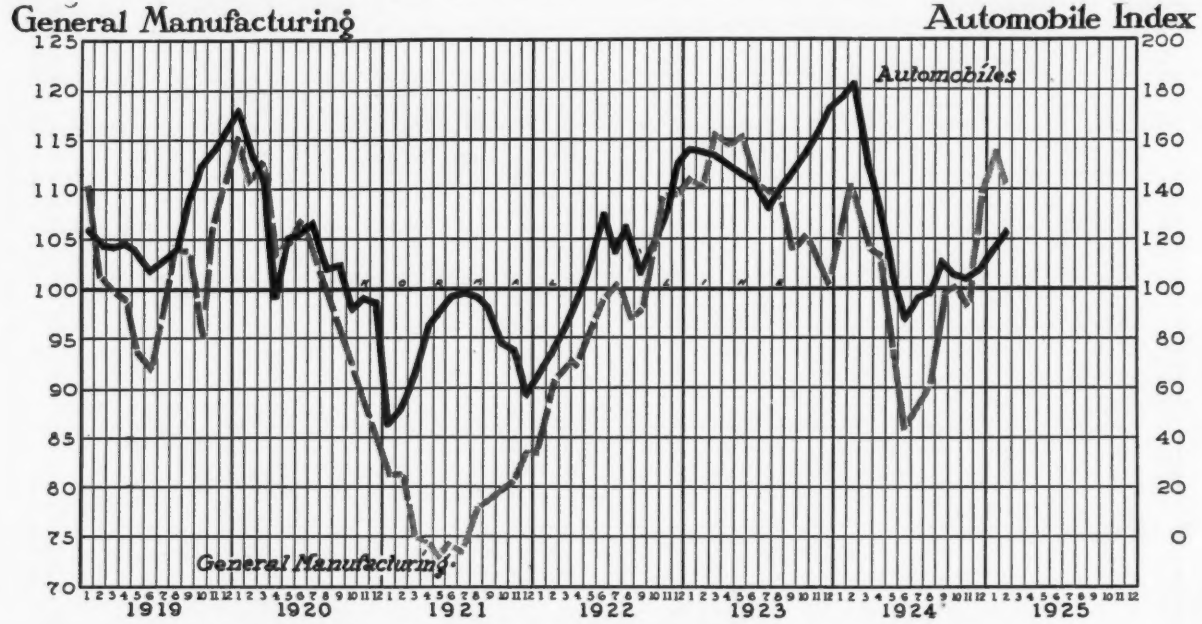
*From U. S. Census Reports.

§Production figures compiled by Automotive Products Section, War Industries Board, from sworn statements by manufacturers.

†Includes motor vehicles of U. S. design made in Canada.

NOTE:—Registrations by States are given on pages 69-75, by Cities on pages 76-77.

Automobile Curve Follows Fluctuations of Manufacturing in General



General manufacturing curve by courtesy of Harvard Committee on Economic Research.

Seasonal variation and the factor of growth have been eliminated from both curves.

Annual Production of Motor Vehicles

TOTAL CARS AND TRUCKS

Year	Number	Wholesale Value	Year	Number	Wholesale Value
*1899.....	4,192	$4,899,443	1913.....	485,000	$425,000,000
1903.....	11,000	12,650,000	*1914.....	569,054	458,957,843
*1904.....	22,830	24,629,439	1915.....	892,618	691,778,950
1905.....	25,000	40,000,000	1916.....	1,617,708	1,088,028,273
1906.....	34,000	62,900,000	†1917.....	1,868,949	1,274,488,449
1907.....	44,000	93,400,000	†1918.....	1,153,638	1,236,106,917
1908.....	65,000	137,800,000	1919.....	1,974,016	1,885,112,546
*1909.....	130,986	165,148,529	§1920.....	2,205,197	2,232,927,628
1910.....	187,000	225,000,000	§1921.....	1,661,550	1,260,000,000
1911.....	210,000	262,500,000	§1922.....	2,659,064	1,789,638,365
1912.....	378,000	378,000,000	§1923.....	4,086,997	2,587,543,704
			§1924.....	**3,617,602**	**2,328,066,004**

PASSENGER CARS

Year	Number	Wholesale Value
*1899.....	4,192	$ 4,899,443
*1904.....	22,419	23,682,492
*1909.....	127,731	159,918,506
1910.....	181,000	213,000,000
1911.....	199,319	240,770,000
1912.....	356,000	335,000,000
1913.....	461,500	399,902,000
*1914.....	543,679	413,859,379
1915.....	818,618	565,978,950
1916.....	1,525,578	921,378,000
†1917.....	1,740,792	1,053,505,781
†1918.....	926,388	801,937,925
1919.....	1,657,652	1,461,785,925
§1920.....	1,883,158	1,809,170,963
§1921.....	1,514,000	1,093,918,000
§1922.....	2,406,396	1,567,003,041
§1923.....	3,694,237	2,276,399,270
§1924.....	**3,243,285**	**2,011,038,288**

MOTOR TRUCKS

Year	Number	Wholesale Value
*1904.....	411	$ 946,947
*1909.....	3,255	5,230,023
1903–1910	10,374	20,485,500
1911.....	10,655	22,292,321
1912.....	22,000	43,000,000
1913.....	23,500	44,000,000
*1914.....	25,375	45,098,464
1915.....	74,000	125,800,000
1916.....	92,130	166,650,273
†1917.....	128,157	220,982,668
†1918.....	227,250	434,168,992
1919.....	316,364	423,326,621
§1920.....	322,039	423,756,715
§1921.....	147,550	166,082,000
§1922.....	252,668	222,635,324
§1923.....	392,760	311,144,434
§1924.....	**374,317**	**317,027,716**

*From U. S. Census reports. 1899 for fiscal year ended June 30 ,1900.

†Production figures compiled by Automotive Products Section, War Industries Board, from sworn statements by manufacturers.

§Figures include production of plants located in Canada, making motor vehicles of U. S. design. Canadian production table is on page 9.

Motor Transportation Products Provide 2,000,000 Carloads of Freight for Railroads Annually

If complete segregated data on this whole question were available, to include Lubricating Oil, Grease, Accessories, Coal, Steel, Raw Products, Sand, Gravel and Road-building Materials, it is estimated that two million carload shipments is the annual contribution to rail carriers from the manufacture and use of automobiles. In addition there is extensive express and less than carload freight shipping.

The principal figures available are:

TABLE OF CARLOADS

	Carloads
Motor vehicles and parts	740,578
Tires	50,000
Gasoline and oil for motor vehicle use	640,000
Cement for highways (25% of total)	151,346

Shipments of Assembled Passenger Cars and Motor Trucks†

Year	Machines Driven Overland	Machines Shipped by Boat	R. R. Freight Carloads of Machines
1922	751,347	58,220	405,195
1923	1,142,315	81,587	604,080
1924	894,825	55,499	579,745

†Including assembling plants.

*Except tires and chains, I. C. C. Commodity Statistics for 1922-1923; American Railway Association for 1924.

Motor Vehicles and Parts Third Largest Railroad Shipments of Manufactured Articles, 1924

(Figures from American Railway Association)

	Carloads		Carloads
1. Refined Petroleum and its products incl. gasoline.	1,486,703	7. Chemicals and explosives..	276,775
2. Bar and sheet iron, structural iron, and iron pipe	792,556	8. Castings, machinery and boilers	250,125
3. Automobiles, trucks and parts	740,578	9. Iron, pig and bloom	243,733
4. Cement	605,384	10. Lime and plaster	234,477
5. Brick and artificial stone	511,571	11. Ice	172,755
6. Fertilizers (all kinds)	338,839	12. Agricultural implements and vehicles other than automobiles	144,565

Capital Invested in Automobile Manufacturing

Year	Cars	Trucks	Total
1919	$784,660,761	$230,782,577	$1,015,443,338
1920	897,953,600	306,425,000	1,204,378,600
1921	1,134,166,000	289,334,000	1,423,500,000
1922	1,154,103,335	302,546,620	1,456,649,954
1923	1,281,364,300	290,358,100	1,571,722,400
1924	1,373,372,426	317,677,686	1,691,050,112

3,119,563 Persons Employed in the Automobile Industry

EMPLOYED DIRECTLY		EMPLOYED INDIRECTLY	
Motor vehicle factory workers	329,563	Iron and steel workers	62,000
Parts and accessory factory workers	300,000	Copper, lead, tin, nickel and aluminum workers	13,000
Tire factory workers	115,000	Railroad workers	80,000
Motor vehicle dealers and salesmen	181,000	Plate glass workers	12,000
Supplies, accessories and parts dealers and salesmen	135,000	Tannery and leather workers	10,000
Garage employees	110,000	Woodworkers	25,000
Tire dealers and salesmen	90,000	Upholstering cloth, top and side curtain material workers	20,000
Repair shop employees	345,000	Asbestos workers	500
Professional chauffeurs	470,000	Paint and varnish factory workers	1,000
Professional truck drivers	750,000	Coal miners	2,500
Gasoline refinery and oil workers	60,000	Total indirectly employed	226,000
Automobile financing and insurance	8,000		
Total directly employed	2,893,563	**GRAND TOTAL**	**3,119,563**

The figures for the various industries are based on the percent of total output of product consumed by automobile industry. No estimates attempted for the number of people working on curled hair and other forms of padding, road construction work, manufacturing of machine tools and other production equipment, extension of automobile plants, etc.

Employment and Wages in Motor Car and Truck Factories

Year	Number	Wages	Year	Number	Wages
1919	210,559	$312,165,870	1922	253,104	$395,707,531
1920	244,700	490,160,000	1923	318,098	579,002,686
1921	186,000	299,098,780	1924	329,563	547,215,700

Canadian Production of Motor Vehicles

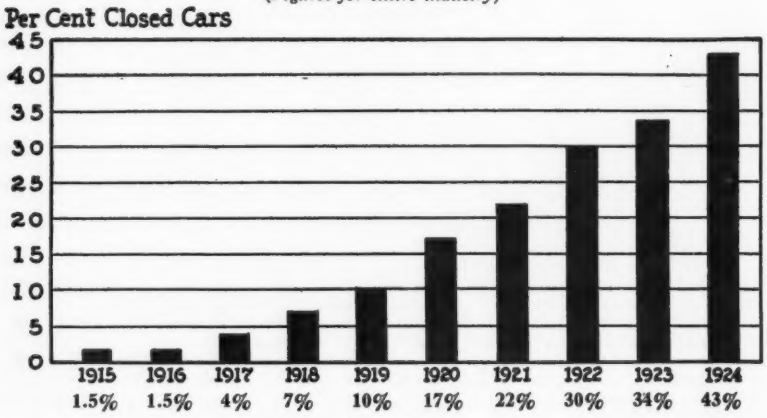
Year	Number	Year	Number
1917	93,810	1921	65,355
1918	82,408	1922	97,904
1919	78,462	1923	145,357
1920	97,868	**1924**	**130,519**

Motor Vehicle Imports 1918-1924

Year Ended December 31	Passenger Cars and Motor Trucks No.	Value
1918	73	$39,733
1919	117	123,025
1920	926	1,026,518
1921	522	876,163
1922	483	802,285
1923	853	884,125
1924	**604**	**841,524**

Per Cent Closed Models by Years

(Figures for entire industry)



Trend in Closed Car Output Increasing

Monthly

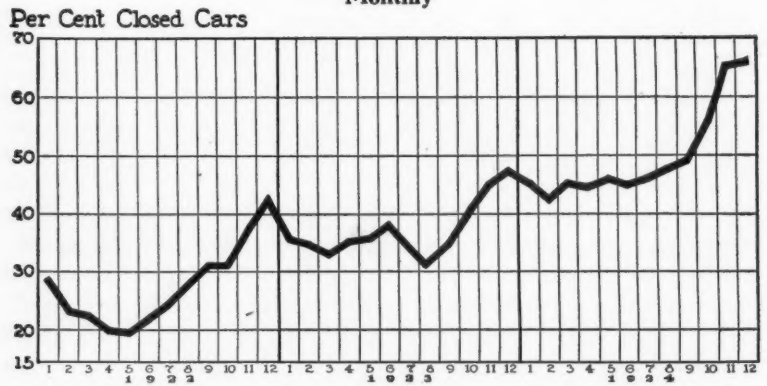


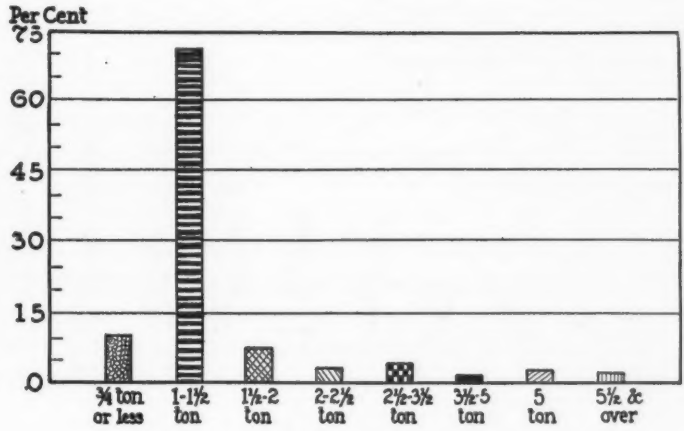
Chart includes all makes of cars of which the touring model retails for over $400.

Closed and Open Car Production

Year	Open	Closed	% Closed
1919	1,496,652	161,000	10.3%
1920	1,563,022	320,136	17.0%
1921	1,179,000	335,000	22.1%
1922	1,691,368	715,028	30.0%
1923	2,434,360	1,259,877	34.0%
1924	1,845,803	1,397,482	43.0%

Truck Production by Capacities

1924



Truck Production by Capacities—Per Cent

SIZE	1919 Percent	1920 Percent	1921 Percent	1922 Percent	1923 Percent	1924 Percent
¾ ton or less.....	21.0	19.0	22.9	24.5	11.3	10.8
1 ton.....	47.0	51.0	54.1	58.5	70.1	71.4
1½ ton.....	8.5	11.0	4.8	2.8	7.7	7.7
2 ton.....	10.0	8.0	7.6	5.5	3.8	2.2
2½ ton.....	5.5	4.0	2.7	4.5	3.2	3.8
3½ ton.....	3.8	4.0	2.3	1.3	1.7	1.0
5 ton.....	2.9	2.0	3.2	2.3	1.2	1.8
Over 5 ton & spec.	1.3	1.0	2.4	.6	1.0	1.3
Total.....	100%	100%	100%	100%	100%	100%

Truck Production by Capacities—Number

SIZE	1919 Number	1920 Number	1921 Number	1922 Number	1923 Number	1924 Number
¾ ton or less.....	66,436	61,187	33,809	62,194	44,198	40,324
1 ton.....	148,691	164,240	79,844	147,796	275,343	267,790
1½ ton.....	26,891	35,424	7,076	7,134	30,249	28,946
2 ton.....	31,636	25,763	11,206	13,830	14,998	8,118
2½ ton.....	17,400	12,871	3,958	11,247	12,519	14,105
3½ ton.....	12,022	12,893	3,343	3,319	6,761	3,526
5 ton.....	9,175	6,441	4,714	5,718	4,611	6,548
Over 5 ton & spec.	4,113	3,220	3,600	1,430	4,081	4,960
Total.....	316,364	322,039	147,550	252,668	392,760	374,317

Outstanding Facts on

Cars cost today 29% less than before the war. Commodities in general cost 67% more.

Railroads received $400,980,000 in freight revenues from automotive products in one year, and paid $34,164,000 in taxes for highways.

The automobile industry ranks first among all U. S. manufactures, rated according to wholesale value of production.

It requires only 71 cents per dollar compared with pre-war prices to buy an automobile today. General cost of living is on the basis of 167 cents per dollar.

Motor vehicle special taxes are paying 42% of the total highway bill.

Federal highway payments 1917-1925 were but 47½% of total Federal excise taxes paid by the automotive industry.

Railroad taxation going to highway purposes is 3.6% of the total highway bill.

The average retail price of new cars sold is $825.

20,000 motor buses transport 470,000 children to school daily.

$800,000,000 in Federal excise taxes has been paid by the automobile industry in 7 years.

The total Federal excise taxes, levied as a war measure, are larger today than in war years.

Motor Transportation

79 cities had fewer fatal motor accidents in 1924 than in 1923; there were 5% fewer grade crossing motor fatalities in 1924 than in 1923.

There are 60,000 buses in operation in the U. S. Of these 3,250 are owned by 200 Electric Railway companies.

Automobile time-payment paper is $99\frac{82}{100}\%$ good. Averages of 50 leading finance companies give losses of less than 1/5 of one per cent. (.18 of 1 %).

The average outstanding note on motor vehicles is $252.

Terms on motor cars are generally one-third cash and the balance payable in twelve monthly installments.

Motor transportation employs more than one-tenth of the male population, 3,119,000 workers.

More than 2,000,000 freight carloads of automotive products are shipped over the railroads annually.

17,592,000 motor vehicles are registered in the United States.

Motor trucks are 12% of the total motor vehicle registration.

Exports of automobiles in 1924 increased $17\frac{1}{2}\%$ over 1923.

Foreign markets consume 12% of the output of American automobile factories.

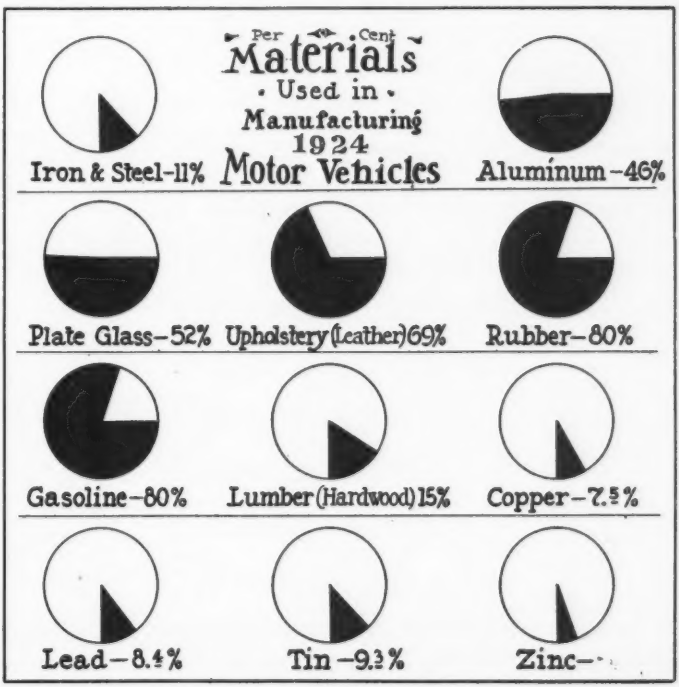
Raw Materials Used in Manufacturing

	Amount Used in Motor Vehicle Manufacturing and % of Total Domestic Consumption of Raw Materials
Iron and steel (tons)	3,052,818
Production of finished rolled iron and steel (tons)	27,750,000
Per cent used in manufacturing motor vehicles	11%
Aluminum (pounds)	80,000,000
Production	172,000,000
Per cent used in motor vehicles	46%
Plate glass (square feet)	48,000,000
Production	91,554,474
Per cent used in motor vehicles	52%
Leather, upholstery (square feet)	47,525,000
Production of upholstery leather	69,109,270
Per cent used in motor vehicles	69%
Rubber (tons)	279,620
Total consumption of crude rubber	335,308
Per cent used in motor vehicles	80%
Lumber, hardwood (board feet)	1,089,498,000
Production of hardwoods	7,000,000,000
Per cent used in motor vehicles	15%
Copper (pounds)	107,471,000
Total consumption	1,452,000,000
Per cent	7.5%
Tin (tons)	6,500
Total consumption	70,000
Per cent used in motor vehicles	9.3%
Lead (tons)	59,500
Domestic production	710,000
Per cent used in motor vehicles	8.4%
Zinc (tons)	19,000
Production	516,000
Per cent used in motor vehicles	3.5%
Nickel (pounds)	4,800,000
Lumber, softwood (board feet)	323,734,000
Cloth, upholstery (yards)	21,108,000
Imitation leather (square feet)	130,325,000

Motor Vehicles During 1924

	Amount Used in Motor Vehicle Manufacturing and % of Total Domestic Consumption of Raw Materials
Top and side curtain material (yards)	17,541,000
Paint and varnish (gallons)	12,700,000
Hair and padding (pounds)	36,170,000
Wool (pounds, grease basis)	20,000,000
Per cent of domestic production	3%
Iron for license plates 1924 (tons)	8,300
Gasoline (gallons)	6,225,000,000
Domestic consumption	7,780,625,085
Per cent used by motorists	80%
Lubricating oil (gallons)	245,000000
Asbestos brake lining for original equipment (ft.)	30,000,000
Asbestos brake lining for replacement (feet)	32,000,000

Per Cent of Raw Materials Used in Motor Manufacturing



1924 Parts, Tire and Accessory Business

(*Figures from Motor and Accessory Manufacturers Association*)

1. Total wholesale value of business $1,500,535,000
2. Parts, tires, units and accessories for *original equipment*..... 900,321,000
3. Parts, tires, units and accessories for *replacements*..... 600,214,000

Gasoline Figures for United States

(*Figures from U. S. Bureau of Mines*)

Year	Domestic Production Gallons	Domestic Consumption Gallons	Excess of Supply Over Demand, Gallons
1920.....	4,882,546,699	4,250,696,163	631,850,536
1921.....	5,153,549,318	4,516,027,256	637,522,062
1922.....	6,202,234,613	5,372,085,042	830,149,571
1923.....	7,555,945,143	6,685,035,280	870,909,863
1924.....	8,959,680,220	7,780,625,085	1,179,055,135

Rubber Tire Production

(*Figures from Rubber Association of America*)

	1921	1922	1923	1924
Tire Casings (number).....	27,297,919	40,930,852	45,245,000	51,633,000
Inner Tubes (number).....	32,082,000	50,847,912	60,171,000	70,705,000
Solid Tires (number).....	586,115	874,000	769,000	910,000
Crude Rubber Consumed (lbs.).	308,125,440	523,526,220	545,135,360	625,348,000

Monthly Car and Truck Production

(*U. S. Department of Commerce Figures*)

1923	Cars	Trucks	Total	1924	Cars	Trucks	Total
Jan....	228,860	20,506	249,366	Jan....	293,822	30,627	324,449
Feb....	260,320	23,283	283,603	Feb....	343,444	32,756	376,200
Mar....	327,038	36,619	363,657	Mar....	357,006	36,270	393,276
Apr....	351,622	39,641	391,253	Apr....	346,355	37,766	384,121
May...	358,646	45,077	404,323	May...	286,266	35,112	321,378
June...	343,985	42,453	386,438	June...	225,034	28,884	253,918
July....	303,497	31,703	335,200	July....	244,503	26,227	270,730
Aug....	318,848	32,195	351,043	Aug....	255,193	28,503	283,696
Sept...	302,340	29,626	331,966	Sept...	263,468	31,829	295,297
Oct....	338,469	31,515	369,984	Oct....	260,845	32,332	293,177
Nov....	288,810	29,166	317,976	Nov...	204,316	27,776	202,082
Dec....	279,862	28,862	308,724	Dec....	182,028	27,324	209,352
Total..	**3,702,297**	**391,246**	**4,093,543**	**Total..**	**3,262,280**	**375,426**	**3,637,706**

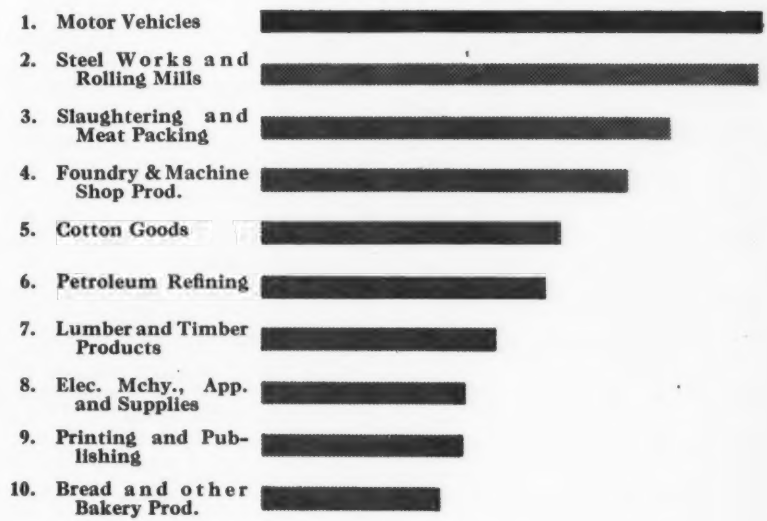
The sum of the monthly totals differs slightly from the yearly figures which include revisions.

Automobile Industry First

Largest of the Country's Manufactures

(*Census of Manufactures* 1923)

	Industry	Wholesale Value, 1923
1.	Motor Vehicles	$3,163,327,874
2.	Steel Works & Rolling Mills	3,154,324,671
3.	Slaughtering & Meat Packing	2,585,803,888
4.	Foundry & Machine Shop Products	2,337,807,997
5.	Cotton Goods	1,901,125,703
6.	Petroleum Refining	1,793,700,087
7.	Lumber & Timber Products	1,494,259,321
8.	Electrical Mchy., App., & Supplies	1,293,001,751
9.	Printing and Publishing	1,268,501,566
10.	Bread & Other Bakery Products	1,122,834,099



10,300,000 Motorists Visit National Forests

1924

State	Total Number of Visitors	Motorists	State	Total Number of Visitors	Motorists
Alabama	2,250	1,275	New Mexico	133,025	122,470
Alaska	59,890	13,370	North Carolina	198,485	192,854
Arizona	353,356	347,214	Oklahoma	100,250	98,000
Arkansas	38,500	32,500	Oregon	1,032,513	980,289
California	4,154,761	3,768,480	Pennsylvania	1,585	1,000
Colorado	1,501,561	1,228,675	South Dakota	145,300	110,600
Florida	15,210	13,300	Tennessee	37,500	33,500
Idaho	437,916	407,409	Utah	255,263	220,777
Michigan	53,430	53,380	Virginia	38,400	32,100
Minnesota	163,861	150,654	Washington	1,149,254	1,101,054
Montana	462,870	417,485	West Virginia	2,200	1,800
Nebraska	8,034	7,434	Wyoming	176,269	144,857
Nevada	72,683	68,344			
New Hampshire	800,000	775,000	**Total**	**11,394,366**	**10,323,821**

16% More Cars Visit National Parks in 1924

Total visitors in National Parks 1924 1,422,353

Total motorists visiting National Parks 1924 (est) 1,089,995

(Figures from Report of Director of National Park Service)

Year	No. of Cars	Year	No. of Car
1916	29,358	1921	175,825
1917	54,692	1922	197,105
1918	53,966	1923	271,872
1919	97,721	1924	315,916
1920	128,074		

Growth in Mileage of Surfaced Highways

Year	Total Mileage	Miles Surfaced	Percentage Surfaced
1904	2,151,379	153,530	7.14
1909	2,199,645	190,476	8.66
1914	2,445,760	257,291	10.52
1921	2,941,294	387,760	13.17
1924	2,941,294	*470,000	*15.98

*Estimated by N. A. C. C.

RURAL
Registration of
Motor Cars and Motor Trucks

Motor vehicle in communities under 1,000 population..... 4,265,280
Estimated total motor vehicles owned on farms.. 3,821,085

FARM OWNED MOTOR VEHICLES 1924

(Figures from Farm Journal)

STATE	All Motor Vehicles	Passenger Cars	Motor Trucks	STATE	All Motor Vehicles	Passenger Cars	Motor Trucks
Alabama.....	36,014	33,912	2,102	Nevada.....	2,571	2,334	337
Arizona.....	7,905	6,861	1,044	New Hampshire.	15,078	12,521	2,557
Arkansas.....	30,635	27,534	3,101	New Jersey.....	38,870	29,019	9,851
California.....	142,153	125,575	16,578	New Mexico....	13,423	12,604	819
Colorado.....	49,425	44,195	5,230	New York.....	178,019	146,748	31,271
Connecticut....	18,884	14,364	4,520	North Carolina.	89,293	83,848	5,445
Delaware.....	9,530	7,323	2,207	North Dakota..	70,758	69,430	1,328
Florida.....	31,805	25,265	6,540	Ohio.....	192,080	175,960	16,120
Georgia.....	69,159	64,809	4,350	Oklahoma.....	107,128	98,917	8,211
Idaho.....	25,998	24,730	1,268	Oregon.....	51,054	45,285	5,769
Illinois.....	195,788	184,068	11,720	Pennsylvania...	191,793	157,368	34,425
Indiana.....	161,613	150,823	10,790	Rhode Island...	5,693	4,077	1,616
Iowa.....	219,854	200,785	19,069	South Carolina..	52,179	47,233	4,946
Kansas.....	167,160	157,625	9,535	South Dakota...	76,660	73,184	3,476
Kentucky.....	63,536	61,382	2,154	Tennessee.....	55,712	52,857	2,855
Louisiana.....	29,939	26,854	3,085	Texas.....	207,384	186,617	20,767
Maine.....	28,789	25,430	3,359	Utah.....	14,651	13,562	1,089
Maryland.....	51,453	43,938	7,475	Vermont.....	19,514	17,568	1,946
Massachusetts..	36,442	23,100	13,342	Virginia.....	73,677	64,076	9,601
Michigan.....	144,214	133,794	10,420	Washington.....	56,466	47,911	8,555
Minnesota.....	174,801	164,193	10,608	West Virginia...	34,234	29,658	4,576
Mississippi.....	43,907	41,300	2,607	Wisconsin.....	176,179	166,229	9,950
Missouri.....	160,898	150,120	10,778	Wyoming.....	15,183	13,881	1,302
Montana.....	44,602	41,482	3,120				
Nebraska.....	139,022	122,910	16,112	U. S.....	†3,821,085	3,453,159	367,926

†NOTE—While few official figures are available, these statistics are compiled from the best obtainable sources. It is expected that 1925 will register a large increase in the farm use of motor transportation, as this field did not gain as rapidly as the rest of the country during the depression years.—N. A. C. C.

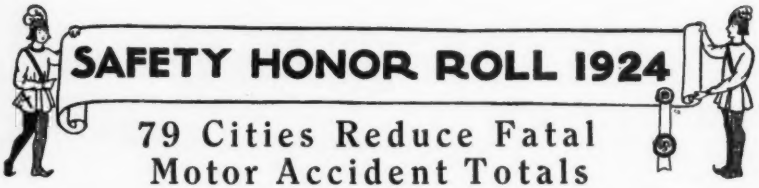
$86 Annually to Operate and Repair Average Farm Automobile

(From Bulletin 1214, *U. S. Department of Agriculture)*

Average Annual Expenditures for Certain Items of Advancement in 402 Farm Families in Livingston County, N. Y.

	OWNER FAMILIES (295)		TENANT FAMILIES (107)		ALL FAMILIES (402)	
	Average Amount per Family Dollars	Proportion of Total Per Cent	Amount Dollars	Proportion of Total Per Cent	Average Amount per Family Dollars	Proportion of Total Per Cent
Formal education.....	39	2.0	29	1.4	36	1.8
Reading matter.....	14	.7	13	.6	14	.7
Contributions to church organizations.....	45	2.3	28	1.3	40	2.0
Entertainments.....	11	.5	16	.8	13	.6
Cost of operating and repairing automobile.	64	3.2	67	3.2	65	3.2
Other travel.....	13	.6	11	.5	12	.6

Among the items of advancement especially tabulated, the largest is the cost of operating and repairing the automobile. This averages $65 a year, or 3.2 per cent of all expenditures. Cars were owned by 304, or 75.6 per cent, of the 402 families, and the annual expense per car was $86.



SAFETY HONOR ROLL 1924

79 Cities Reduce Fatal Motor Accident Totals

Figures supplied by the Health Departments of the respective cities.

29 OUT OF 68 CITIES, 100,000 POPULATION AND OVER

	1923	1924		1923	1924
Chicago	583	560	Syracuse	44	39
Philadelphia	304	270	New Haven, Conn.	30	45
Newark, N. J.	103	99	Memphis	43	30
Cincinnati	106	103	San Antonio	16	13
Seattle	70	67	Dayton	25	24
Rochester	47	45	Bridgeport	24	22
Portland, Ore.	36	31	Hartford	30	17
Denver, Colo.	41	39	Scranton	35	18
Toledo	59	45	Des Moines	24	18
Louisville, Ky.	34	32	New Bedford	8	7
St. Paul, Minn.	56	53	Fall River	23	15
Oakland, Calif.	61	47	Camden, N. J.	42	35
Akron	48	40	Albany, N. Y.	37	23
Omaha	28	18	Fort Worth	36	14
Worcester	35	31			

15 OUT OF 76 CITIES, 50,000 TO 100,000 POPULATION

	1923	1924		1923	1924
Erie, Pa.	41	23	Saginaw, Mich.	16	9
Somerville, Mass.	13	10	Holyoke, Mass.	8	7
Waterbury, Conn.	18	14	Springfield, Ill.	7	4
Fort Wayne, Ind.	19	17	Chester, Pa.	11	7
Binghamton, N. Y.	19	14	Lansing, Mich.	13	11
Terre Haute, Ind.	35	24	Gary, Ind.	22	21
Sacramento, Cal.	32	23	Lincoln, Nebr.	11	10
Pawtucket, R. I.	26	15			

35 OUT OF 143 CITIES, 25,000 TO 50,000 POPULATION

	1923	1924		1923	1924
Winston-Salem, N. C.	14	11	East Chicago, Ill.	17	10
Quincy, Mass.	12	8	Danville, Ill.	12	10
Newton, Mass.	10	6	Amsterdam, N. Y.	10	8
Cedar Rapids, Iowa	5	2	Petersburg, Va.	7	5
Montgomery, Ala.	11	5	La Crosse, Wis.	4	3
Chelsea, Mass.	8	7	Lynchburg, Va.	10	7
Pueblo, Colo.	7	4	Kokomo, Ind.	3	1
Salem, Mass.	9	8	Cumberland, Md.	18	10
Lexington, Ky.	9	6	Anderson, Ind.	6	5
Lima, Ohio	13	9	Zanesville, Ohio	11	5
Charleston, W. Va.	7	4	Elgin, Ill.	7	4
Dubuque, Iowa	5	3	East Cleveland, Ohio	5	3
Joliet, Ill.	21	10	Kingston, N. Y.	12	9
Brookline, Mass.	2	11	Rome, N. Y.	2	1
Evanston, Ill.	15	10	Bangor, Me.	3	2
Muskegon, Mich.	10	8	Port Huron, Mich.	3	2
Aurora, Ill.	13	12	Irvington, N. J.	7	10
Council Bluffs, Iowa	6	5			

How to Improve Traffic

1. Get the Facts.

Find out what streets are overcrowded, what regulation will help, where and why accidents occur.

2. Build for It.

Cut out the "bottle necks," plan for the city's growth; study transportation as a whole.

3. Centralize.

Responsibility in both state and city should be centralized in one office with power to act.

4. Educate.

Traffic and safety are subjects of daily life, and should be included in school study.

Adults can be aroused to interest through newspapers, motor clubs, and other local organizations.

5. Punish.

Prompt and severe punishment is needed for the "lunatic fringe" of reckless drivers who jeopardize the safety and comfort of the great majority.

6. Co-operate.

The individual ownership of motor traffic creates an individual duty. Voluntary observance of laws and regulations is an important factor.

NOTE—Detailed studies of the various phases of traffic and safety are contained in the Reports of the FIRST NATIONAL CONFERENCE ON STREET AND HIGHWAY SAFETY. These may be obtained without charge from the Department of Commerce, Washington, D. C.

The MONTHLY BULLETINS ON TRAFFIC AND SAFETY, published by the National Automobile Chamber of Commerce, 366 Madison Avenue, New York, contain current studies on different phases of traffic, and current statistics on accident causes furnished by more than 300 newspapers, health departments, highway departments, safety councils, motor clubs, and other groups. The bulletins are obtainable without charge.

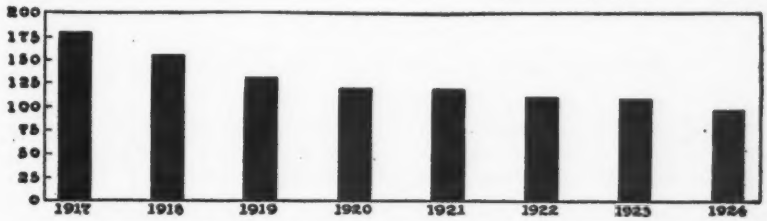
5% Fewer Automobile Grade Crossing Fatalities in 1924

(Figures from the American Railway Association)

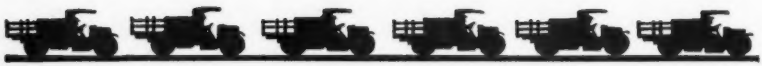
1920	1,791	1923	2,268
1921	1,705	1924	2,149
1922	1,810		

Ratio of Motor Fatalities to Registration Declines

Year	Automobile Fatalities	Motor Vehicle Registration	Fatalities per 100,000 Registration
1917	9,097	5,104,321	178
1918	9,457	6,146,617	154
1919	9,825	7,565,446	130
1920	11,074	9,231,941	119
1921	12.370	10,463,295	118
1922	13,676	12,238,375	112
1923	16,452	15,092,177	109
1924	17,345	17,591,981	98



Bars illustrate the number of motor fatalities per 100,000 vehicles registered. See table above.



Fifteen of the Largest Fleets of Motor Trucks in the United States

(From Motor Transport)

Post Office Department, 11th & Penna. Ave., Washington, D. C.	4,930	Liggett & Myers Tobacco Co., 212 Fifth Ave., New York City	1,262
American Railway Express, 2 Rector St., New York City (All Branches)	3,831	Street Cleaning Department, 366 Flushing Ave., Brooklyn, N. Y.	1,200
Armour & Co., Union Stock Yards, Chicago, Ill. (All Branches)	3,374	Associated Bell Telephone Companies	1,183
Standard Oil Co. of Indiana, 910 S. Michigan Ave., Chicago, Ill. (All Branches)	3,200	Standard Oil Co. of New Jersey, Baltimore, Md.	997
Gulf Refining Company	1,738	Standard Oil Co. of New York	842
Swift & Company, Union Stock Yards, Chicago, Ill.	1,500	Chas. D. Farmer, Raleigh, N. C.	800
		New England Tel. & Elec. Co., Boston, Mass.	780
		Union Oil Co. of California	759
		Coca Cola Bottling Company	353

Milk Haulage Costs Reduced One-Half by Use of Trucks

United Milk Co. of San Francisco has reduced its haulage costs for milk by one-half through the adoption of glass-lined tanks mounted on motor truck chassis, instead of shipping by rail in 10-gallon cans. The savings effected by the motor truck fleet in 1924 are as follows:

Elimination of two men handling cans	$4,080.00
Discarding of 700 ten-gallon cans, average life two years, at cost of $5 each	1,750.00
Reduction from rail charges of 5 cents per gallon, first to 4 cents by can-truck, and then to 3 cents by tank-truck, saving of 2 cents a gallon or $100 a day	31,300.00
Elimination of sloppage, figured at 15 gallons daily at current retail price of 10 cents a gallon, or $1.50 daily	469.50
Total saving for year	$37,599.50

—Motor Transport.

100,000 Motor Trucks Used in Oil Industry

(From "National Petroleum News")

7,000 oil distributing companies in the United States own over 100,000 motor trucks. 67% of these are over 1½ ton capacity. A survey of truck use in the oil distributing industry drew replies by 1095 companies, and yielded fleet statistics as follows:—

1095 Companies **32,406** Trucks **29** Trucks per Fleet

The average annual increase in truck fleets in this industry is 20%. The average life of light trucks in oil distributing service is 3 years. Trucks over 1½ ton capacity have an average life of 5 years.

How to Keep Motor Truck Operation and Cost Records

(Note.—A booklet "International Standard Truck Cost System" describing forms for motor truck operation and cost may be obtained free of charge from the Motor Truck Committee, National Automobile Chamber of Commerce, 366 Madison Avenue, New York. Below is shown a specific instance of a 3½-ton truck in the general trucking line.)

Owner—Red Line Transfer Co. **Business**—General Trucking
Address—Des Moines, Ia. **Truck Capacity**—3½-Ton

OPERATION RECORDS

A—Total Period		B—Daily Averages	
1. Period covered	1 Year	12. Round Trips	.....
2. Days operated	275	13. Deliveries—Pickups	.....
3. Days out for Repairs	.....	14. Loads—Out	.....
4. Total Round Trips	.....	15. Loads—In	.....
5. Deliveries—Pickups	.....	16. Total Loads	.....
6. Loads—Out	.....	17. Miles Tra eled	40
7. Loads—In	.....	18. Miles per Round Trip	.....
8. Total Loads	.....	19. Loads per Trip	.....
9. Miles Traveled	11,000	20. Unit Miles	.....
10. Gasoline—Gallons used	1,833	21. Miles per Gallon Gas	6
11. Cylinder Oil—Pints used	275	22. Miles per Pint Oil	40

COST RECORDS

C—Investments		E—Variable Charges—Period	
23. Chassis	$4,180.00	40. Fuel at 23 cts. Gallon	$ 421.59
24. Body	662.31	41. Cylinder Oil at 7½ cts. Pint	20.63
25. Cab	.....	42. Tires—11,000 Miles	264.00
26. Painting	.....	$360.36—15,000 Miles Life	
27. Special Equipment	.....	43. Depreciation—11,000 Miles	896.50
28.	.....	$4,481.95—55,000 Miles Life	
29.	.....	44. Maintenance and Repairs (Est.)	165.00
30. Total Investment	4,842.31	45. Driver's Wages	1,352.46
31. Tire Value	360.36	46. Total Variable Charges	3,119.72
32. Total less Tires—to be Depreciated	4,481.95	47. Total Fixed Charges	1,202.43
		48. **Total Operation Cost**	**$4,322.15**

D—Fixed Charges—Yearly		F—Daily Costs	
33. Interest on Total Inv. at 8%	$232.43		
34. Taxes and Licenses	100.00	49. Cost per Day Operated	$15.72
35. Insurance	250.00	50. Cost per Mile Traveled	.393
36. Garage Expenses	120.00	51. Cost per Unit Hauled	.....
36A—Administrative Overhead	500.00	52. Cost per Unit—Mile	.....
37. Total Per Annum	1,202.43	53. Repair Cost per Mile—Est	.015
38. Total per Month	100.20	54. Cost per Day—without Overhead	14.26
39. Total for Period	1,202.43	55. Cost per Mile—without Overhead	.356

Example of N. A. C. C. Standard Caution Plate

For Motor Trucks

MAXIMUM SPEED 16 MILES PER HOUR. DO NOT EXCEED. THIS VEHICLE, WHEN TESTED AT THE FACTORY, SHOWED A BRAKE CAPACITY WHICH ENABLED THE DRIVER TO STOP IT, WHEN LOADED TO ITS STATED CAPACITY AND WHEN RUNNING AT ITS MAXIMUM STATED SPEED IN 40 FEET ON A DRY, HARD LEVEL ROAD. NOTE: CHASSIS WEIGHT INCLUDES COMPLETE CHASSIS, FRONT FENDERS, STEP, DRIVER'S SEAT, TOOLS, LAMPS, HORN, LICENSE BRACKETS, NORMAL QUANTITY OF FUEL, LUBRICANT AND COOLING MEDIUM; BUT WITHOUT DRIVER, BODY, AUXILIARY POWER DEVICES OR EQUIPMENT.	NAME AND ADDRESS OF MANUFACTURER MADE IN U.S.A.	CHASSIS NUMBER CAUTION OVERLOADING OR OVER SPEEDING WILL VOID YOUR WARRANTY.

MAXIMUM WEIGHTS	LBS.
CHASSIS (SEE NOTE)	6,300
BODY, LOAD & EQUIP.	8,000
GROSS WEIGHT	14,300
FRONT AXLE (GROSS)	6,000
REAR AXLE (GROSS)	12,000

Etched on 16 B. & S. gauge rolled brass, with letters recessed and filled with red and black enamel.

To be incorporated in Caution Plate when used on Electric Trucks:

"Chassis weight includes running gear, motor, battery, cradle, driving and control mechanism, wiring, housing, tools, lamps, horn, license brackets, charging plug and cable; but without driver, battery, body, auxiliary power devices or equipment."

Note—The example given above shows how to fill in the figures. They should be stamped by hand with steel dies, and the plates should be completely filled in by the manufacturer and attached to each chassis before it leaves the factory. The center on the plate may be used by the manufacturer for model, designation, type, size or tonnage rating of chassis, if he so desires.

Speed Rating—The figures given in the table headed Standard Speed Ratings for Motor Trucks should be recognized by the manufacturer as the maximum and not exceeded under any condition. Manufacturer should stamp on the truck caution plate the actual maximum speed with load for which the truck was built and beyond which the truck is not guaranteed.

Chassis Weight—This is the weight of the chassis as built by each manufacturer and may vary with wheelbase, frame length, tire equipment, etc. Manufacturer should weigh each individual chassis equipped according to note on the plate, defining chassis weight. This actual chassis weight should be stamped on the plate and plate attached to the chassis before chassis leaves the factory.

Front Axle Gross—This is the maximum weight which manufacturer will allow to be concentrated on the front wheels of the truck. It will depend largely on the tire equipment and factors of safety contained in the axles, wheels, springs and frame.

Rear Axle Gross (Weight)—This is the maximum weight which the manufacturer will allow to be concentrated on the rear wheels of the truck fully loaded. It will depend largely on tire equipment and factors of safety in the axle, wheels, springs and frame.

Gross Weight—This is the total overall weight of chassis, body, load and equipment. This gross weight may or may not be the sum of the front and the rear axle gross weights, dependent upon the allowance which the manufacturer wishes to make for the variation in load distribution, but in either case this is the most important weight on the plate, and it is the basis on which motor trucks will be rated in the near future.

Body, Load and Equipment—This is the difference between the gross weight and the chassis weight and should be stamped by the manufacturer at the time the chassis leaves the factory. In the case of electric trucks, storage battery will be included in this weight. The weight of the load is purposely lumped with the weight of the body and the weight of the equipment, and it will be necessary for the owner of the truck to actually weigh the truck after body and equipment have been mounted, and to subtract this tare weight from the gross weight in order to determine the freight load or carrying capacity of his vehicle. Most of the States require that the weight of the truck light, its capacity and its gross weight should be painted on the sides of the body. In other words, the truck owner will not be able to determine the actual capacity of his truck until he has determined the actual weight of the body, and the equipment mounted on the chassis.

Brake Capacity—This should be determined by the manufacturer in the case of each individual chassis before it leaves the factory. A reasonable allowance should be made for variation in brake adjust-

DATA ON N. A. C. C. STANDARD CAUTION PLATE

(*Continued from preceding page*)

ment. This information is furnished to assist law enforcement officers in checking up operation and adjustment of brakes. All figures used in the above plate are for purposes of illustration only. These plates should be approximately 10½" long and 3½" wide and should be riveted permanently to the chassis at some point where they can be readily seen, but from which it will never be necessary to remove them.

Note—Plate once attached to chassis should never be removed unless chassis weight is increased or decreased by changes in tires, wheels, springs, axles or frame. In case chassis weight is materially altered after chassis leaves the factory, a new plate should be attached to chassis frame with the corrected chassis weight.

Motor Truck Standards of the N. A. C. C.

(*Adopted January*, 1923)

Gross Weight, Chassis, Body and Freight Load	Speed, Miles per Hour	Gross Weight, Chassis, Body and Freight Load	Speed, Miles per Hour
Pneumatic tires up to 28,000 lbs	25	20,000 lbs	15
Solid rubber tires, up to		24,000 "	15
4,000 lbs	25	26,000 "	15
8,000 "	20	28,000 "	15
12,000 "	18		
16,000 "	16		

Note—The speed ratings should be recognized by the manufacturer as the maximum and not exceeded under any conditions. The manufacturer should stamp on the truck caution plate the actual maximum speed with load for which the truck is built and beyond which the truck is not guaranteed.

STANDARD BODY WEIGHT ALLOWANCES FOR MOTOR TRUCKS

Load Tons	Body Weight Allowance Pounds	Load Tons	Body Weight Allowance Pounds
1 to 1½	1,200	3 to 3½	2,000
2 to 2½	1,500	4	
		5-ton and over	2,500

Note—Weights of bodies, whether built by the vehicle manufacturer or by a body builder to the order of the purchaser, should be kept within these allowances.

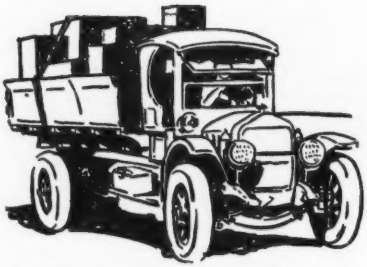
STANDARD FRAME WIDTHS AND LENGTHS FOR COMMERCIAL VEHICLES

Frame Width, either 36 or 42 inches, for all sizes of commercial vehicles, measured back of seat.

Frame Length, back of seat, to be in full multiples of feet and half feet from 4 to 18 feet, thus:

Feet		Inches	Feet		Inches	Feet		Inches
4	(Equiv. to)	48	9½	(Equiv. to)	114	13	(Equiv. to)	156
5	" "	60	10	" "	120	13½	" "	162
6	" "	72	10½	" "	126	14	" "	168
7	" "	84	11	" "	132	15	" "	180
8	" "	96	11½	" "	138	16	" "	192
8½	" "	102	12	" "	144	17	" "	204
9	" "	108	12½	" "	150	18	" "	216

Note—The standard frame lengths as adopted are independent of chassis load capacity.



Railroad

Use of Motor Truck Transportation

33 Railroads in the United States and Canada are now using motor trucks as part of their shipping service.

21 Railroads contemplate, or are investigating the use of trucks for the first time, or expect to add to their present trucking service.

9 Railroads use containers.

6 Railroads contemplate or are investigating the use of containers.

174 Railroads in the United States, Canada and Mexico are using approximately 483 gasoline rail motor coaches. Twenty of these lines contemplate adding additional equipment.

24 Railroads not now having gasoline rail motor coaches contemplate or are investigating their use.

RAILROADS USING TRUCKS FOR FREIGHT HAULAGE

30 for Terminal Movement—6 to Replace Local Freight Trains

•Boston & Albany Railroad
†Buffalo, Rochester & Pittsburgh Railway Company
•Canadian National Railways
†•Chicago & Northwestern Railroad
†Lehigh Valley Railroad Company
•Erie Railroad
†•New York Central Railroad Company
‡†Pecos Valley Southern Railway
†•Pennsylvania Railroad System
‡•Baltimore & Ohio Railroad Company
‡•Cleveland, Cincinnati, Chicago & St. Louis Railway Co.
‡•Chesapeake & Ohio Railway
‡•Louisville & Nashville Railroad
‡•Pennsylvania Railroad System
‡•Southern Railway System
‡•Norfolk & Western Railway Company
§•Baltimore & Ohio Railroad Co.
§•Chicago, Burlington & Quincy R.R. Co.
§•Chicago & Alton Railroad
§•Chicago & Eastern Illinois Railway Co.

§*Chicago, Rock Island & Pacific Railway
§*Cleveland, Cincinnati, Chicago & St. Louis Ry.
§*East St. Louis, Columbia & Waterloo Ry.
§*Frisco Lines
§*Illinois Central Railroad
§*Illinois Traction System (Elec.)
§*Louisville & Nashville Railroad
§*Louisville, Henderson & St. Louis Railway
§*Missouri-Kansas-Texas Lines
§*Missouri Pacific Railroad
§*Mobile & Ohio Railroad
§*New York, Chicago & St. Louis Railroad Co.
§*Pennsylvania Railroad System
§*St. Louis Southwestern Railway Lines
§*Southern Railway System
§*Wabash Railway Company
§*Chicago, Peoria & St. Louis Railroad
§*Litchfield & Madison Railway
§*St. Louis, Troy & Eastern Railroad

NOTE: All the above railroads contract with trucking firms, except the Pecos Valley Southern Railway, which owns its trucks. Canadian National Railways both owns trucks and contracts for their use.
*For terminal movement.
†To replace local freight trains.
‡Contract with Cincinnati Motor Terminals Co., for truck service at Cincinnati.
§Contract with Columbia Terminals Company for truck service at St. Louis and East St. Louis.

Railroads Contemplating Use of Trucks or Use of Additional Trucks

Atchison, Topeka & Santa Fe Railway System
Boston & Maine Railroad
*†Baltimore and Ohio Railroad Company ("Studying possibilities")
Canadian National Railways
Chicago Junction Railway
*†Chicago & Northwestern Railroad
*†Chesapeake & Ohio Railway Company
Delaware & Hudson Railroad
Denison, Bonham & New Orleans Railroad Company
Florida East Coast Railway Company ("Interested in others' results")
*Indiana, Columbus & Eastern Traction Company
Missouri-Kansas-Texas Railroad Company ("Interested")
*Middletown & Unionville Railroad Company
Northern Pacific Railway Company
†*New York Central Railroad Company
*New York, New Haven & Hartford Railroad Company
†Pecos Valley Southern Railway
*†Pennsylvania Railroad System
Sierra Railway Company of California ("Watching situation")
*†Seaboard Air Line Railway Company ("Under study")
†Wrightsville & Tennille Railroad Company ("Indefinite")

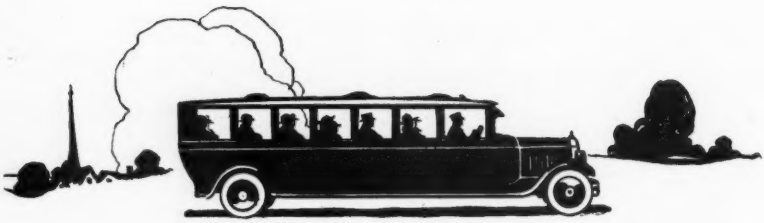
9 * For terminal movements. 8 † To replace local freight trains. 10 Indefinite.

Typical Department Store Fleets of Motor Trucks

(Figures from Retail Delivery Association, of National Retail Dry Goods Association)

R. H. Macy & Co., Inc., New York City	†225
Frederick Loeser & Co., Brooklyn, N. Y.	103
Kauffman's, Pittsburgh, Pa.	76
Bloomingdale Bros., Inc., New York City	65
L. Bamberger & Company, Newark, N. J.	88
Robert Simpson & Co., Ltd., Toronto, Canada	65
A. I. Namm & Son, Brooklyn, N. Y.	63
The Eleto Company, New York City	142
Abraham & Straus, Inc., Brooklyn, N. Y.	94
Sask & Company, New York City	66
J. L. Hudson Company, Detroit, Mich.	95

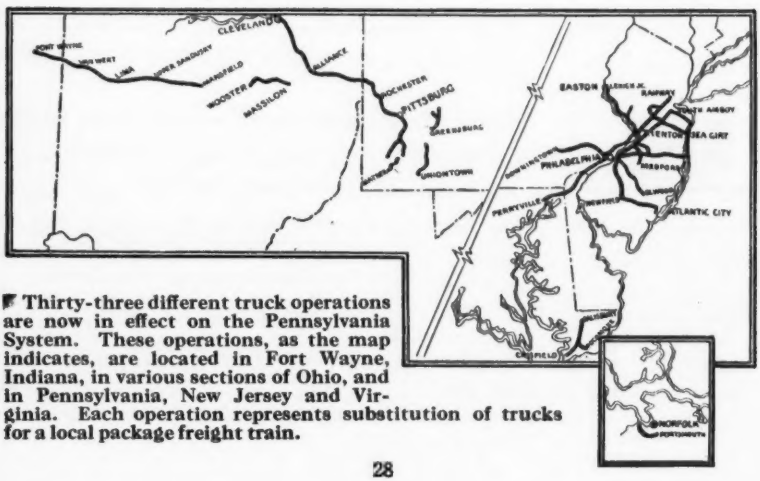
† 43 horse drawn.



60,000 Motor Buses in U. S. A.

Common carrier independents	31,100
Electric railways	3,250
Hotels	1,000
Schools	20,000
Sightseeing, tourist and contract	1,500
Industrial use, including real estate, department store, apartment house, garage and factory service	2,900
Railroad terminal companies	250
Total	60,000

PENNSYLVANIA RAILROAD'S USE OF MOTOR TRUCKS



Thirty-three different truck operations are now in effect on the Pennsylvania System. These operations, as the map indicates, are located in Fort Wayne, Indiana, in various sections of Ohio, and in Pennsylvania, New Jersey and Virginia. Each operation represents substitution of trucks for a local package freight train.

How to Figure

Ton-Mile Costs and the Making of Rates

Ton-miles are the units for measuring truck performance. The principle of ton-mileage may be applied to any class of motor truck haulage whether the units are baskets, bundles, kegs, cases or thousands of feet of lumber. For the concern which does not do its hauling in tons the same measure of haulage may be had by simply substituting for the ton the unit best suited to measure the delivery system. Thus instead of the ton-mile we have the package-mile, multiplying the number of packages delivered by the number of miles covered in delivering them, or the keg-mile or the case-mile.

EXAMPLES:

(1) Actual ton-mileage—5-ton load carried 5 miles, returning empty. (5 tons x 5 miles) plus (0 tons x 5 miles) = 25 ton-miles.

(2) 5-ton load carried 5 miles, returning with 5 tons. (5 tons x 5 miles) plus (5 tons x 5 miles) = 50 ton-miles.

(3) Truck starts on a round trip of 22 miles loaded with 5 tons. After 2 miles it delivers 1 ton; travels 3 miles further and delivers 2½ tons; 4 miles further and delivers ½ ton; 2 miles further and delivers 1 ton, when the truck is empty. The truck is then loaded with 5 tons and returns 11 miles.

Miles	Tons	Ton-miles
2	5	10
3	4	12
4	1½	6
2	1	2
11	5	55
22	**Total**	**85 ton-miles**

Commercial Ton-mileage:—

(1) 5-ton load carried 5 miles, returning empty.
$\frac{5 \text{ tons x } 10 \text{ miles}}{2} = 25$ commercial ton-miles.

(2) 5-ton load carried 5 miles, returning full.
$\frac{10 \text{ tons x } 10 \text{ miles}}{2} = 50$ commercial ton-miles.

(3) Same as above.
$\frac{10 \text{ tons x } 22 \text{ miles}}{2} = 110$ commercial ton-miles.

RECEIPTS OF HOGS, INDIANAPOLIS STOCKYARDS, 1913-1923

Year	Total Receipts	Truck Receipts	Per Cent of Total
1913	1,994,624	90,821	4.55
1914	2,099,787	96,591	4.60
1915	2,435,319	136,447	5.60
1916	2,576,611	173,191	6.72
1917	2,350,730	271,994	11.57
1918	2,749,976	462,313	16.81
1919	2,936,493	711,212	24.21
1920	2,896,894	791,988	27.33
1921	2,694,705	808,595	30.00
1922	2,266,551	734,280	32.39
1923	2,875,648	934,960	32.54

60,000 Motor

31,100 Operated by Independents*
20,000 Used by Schools

(From "Bus

STATES	INDEPENDENT BUS COMPANIES							RY. OWNED OR BUS	
	No. of Cos.	No. of Routes	No. of Vehicles Total	Bus	Stage	T.C.	Miles of Route	No. of Cos.	No. of Routes
New England District									
1. Connecticut	63	110	249	206	....	43	796	5	25
2. Maine	61	56	90	9	7	74	1,475	1	1
3. Massachusetts	127	234	474	437	37	....	3,200	9	35
4. New Hampshire	34	38	53	32	....	21	326	....	....
5. Rhode Island	22	9	26	14	....	12	110	2	10
6. Vermont	36	39	58	42	....	16	1,080	1	1
North of the Ohio and East of the Mississippi									
7. Delaware	6	8	27	27	....	....	150	....	....
8. Dist. of Columbia	17	29	128	103	25	....	60	3	16
9. Illinois	187	211	1,140	1,007	67	66	3,925	13	29
10. Indiana	206	218	760	434	107	219	3,420	7	12
11. Maryland	54	85	245	245	....	....	900	3	12
12. Michigan	200	222	769	313	194	262	4,600	6	26
13. New Jersey	50	186	1,798	1,518	....	280	1,500	7	74
14. New York (outside New York City)	467	494	1,454	1,454	....	....	1,882	11	27
New York City	300	63	694	694	....	....	109	....	....
15. Ohio	396	420	944	420	....	524	8,500	18	60
16. Pennsylvania	711	752	2,260	2,260	....	....	15,000	21	55
17. Wisconsin	125	150	278	250	....	28	5,000	6	31
South of the Ohio River and East of the Mississippi (Southeastern States)									
18. Alabama	79	89	280	189	45	46	2,000	2	2
19. Arkansas	50	64	150	125	10	15	25,000	1	4
20. Florida	53	77	267	249	....	18	3,163	2	3
21. Georgia	103	142	489	221	....	268	4,273	1	1
22. Kentucky	595	600	1,785	792	....	993	5,945	1	1
23. Louisiana	112	148	400	200	....	200	5,880	1	2
24. Mississippi	25	30	50	20	10	20	750	1	2
25. South Carolina	48	66	222	78	....	144	1,959	2	4
26. North Carolina	167	185	523	290	17	216	6,000	5	5
27. Tennessee	125	145	255	120	39	96	3,860	1	1
28. Virginia	182	202	613	387	....	226	4,283	1	1
29. West Virginia	56	77	202	98	....	104	1,019	3	4
Northwestern States									
30. Idaho	30	60	61	1	40	20	2,500	....	....
31. Iowa	105	126	315	276	26	13	3,150	6	9
32. Minnesota	73	106	312	82	132	3	4,033	3	7
33. Missouri	64	79	283	200	33	50	1,305	6	10
34. Montana	41	50	62	16	22	24	2,106	....	....
35. Nebraska	40	44	120	50	35	35	1,100	1	—
36. North Dakota	31	31	59	23	....	63	1,632	....	....
37. South Dakota	25	25	75	32	....	43	2,000	1	6
38. Wyoming	12	14	27	13	3	11	650	....	....
Southwestern States									
39. Arizona	56	69	113	41	32	40	144	....	....
40. Colorado	143	150	240	160	15	65	2,500	....	....
41. Kansas	75	94	225	112	56	57	3,750	6	9
42. Nevada	75	80	150	10	25	115	4,500	....	....
43. New Mexico	35	35	70	5	20	45	525	1	1
44. Oklahoma	125	150	195	20	25	150	11,327	3	6
45. Texas	198	219	743	200	143	400	15,330	6	12
46. Utah	44	47	107	19	13	75	1,968	1	1
Pacific Coast States									
47. California	500	990	2,000	300	1,500	200	17,500	14	67
48. Oregon	79	90	304	54	200	50	4,500	3	7
49. Washington	143	183	472	111	229	132	5,230	8	16

*This refers to common carrier service only. Independent buses in all types of service total 36,750.

Buses in U. S. A.

3,250 Owned by Electric Railways
1,500 in Sightseeing Service

Transportation")

CONTROLLED COS.		HOTEL BUSES			SCHOOL BUSES		SIGHTSEEING BUSES			
No. of Buses	Miles of Route	No. Hotels	No. of Buses	Miles of Route	No. of Schools	No. of Buses	No. Cos.	No. of Buses	Miles of Route	STATE
										New England District
92	167.83	1	1	9.0	....	69	1	13	....	1. Connecticut
5	2.50	11	26	147.0	....	102	....	....	....	2. Maine
152	202.87	6	7	16.5	....	250	14	70	4,890	3. Massachusetts
....	....	8	12	23.5	....	24	....	....	....	4. New Hampshire
55	92.30	....	....	....	....	5	....	....	....	5. Rhode Island
3	5.50	7	13	3.5	10	13	....	....	....	6. Vermont
										North of the Ohio and East of the Mississippi
....	....	....	....	....	6	60	....	....	.....	7. Delaware
38	44.60	....	....	....	....	....	7	57	500	8. Dist. of Columbia
109	189.34	5	8	10.50	39	89	4	40	5,560	9. Illinois
47	103.67	6	9	14.75	....	1,729	....	....	.....	10. Indiana
91	219.50	1	1	.25	....	130	18	24	80	11. Maryland
206	260.80	3	5	61.00	43	234	1	1	10	12. Michigan
644	614.70	22	35	17.25	84	494	4	10	187	13. New Jersey
125	115.69	4	5	2.75	....	192	....	....	....	14. New York (outside New York City)
....	....	....	....	....	....	....	80	350	75	New York City
264	569.20	....	....	....	....	1,236	6	12	125	15. Ohio
142	425.20	1	1	1.00	....	600	4	23	355	16. Pennsylvania
140	735.70	....	....	....	42	47	....	....	....	17. Wisconsin
										South of the Ohio River and East of the Mississippi (Southeastern States)
7	6.40	....	....	....	....	450	....	....	....	18. Alabama
12	2.00	25	20	8.00	....	84	....	....	....	19. Arkansas
23	92.00	33	41	168.87	....	328	7	27	1,090	20. Florida
4	10.60	6	6	77.08	....	532	1	1	17	21. Georgia
12	7.85	1	1	4.00	....	200	....	....	....	22. Kentucky
10	4.50	1	1	.38	440	553	....	....	....	23. Louisiana
2	6.00	1	1	.75	608	1,539	....	....	....	24. Mississippi
5	10.90	3	3	2.65	200	300	3	5	113	25. South Carolina
9	5.00	....	....	....	234	1,318	....	....	....	26. North Carolina
1	1.00	....	....	....	....	153	1	10	15	27. Tennessee
5	5.50	2	2	1.75	....	400	....	....	....	28. Virginia
10	89.00	....	....	....	....	588	....	....	.....	29. West Virginia
										Northwestern States
....	....	....	....	....	....	15	....	....	....	30. Idaho
20	50.75	4	4	3.25	....	1,023	....	....	....	31. Iowa
50	73.60	6	8	59.75	....	342	....	....	....	32. Minnesota
33	49.00	1	1	.25	....	28	....	....	.....	33. Missouri
....	....	2	2	2.00	98	677	....	....	....	34. Montana
1	5.30	1	1	.50	60	156	....	....	....	35. Nebraska
....	....	....	....	....	....	815	....	....	....	36. North Dakota
8	167.00	....	....	....	....	115	....	....	....	37. South Dakota
....	....	....	....	....	....	44	1	299	750	38. Wyoming
										Southwestern States
....	....	2	2	1.00	....	28	....	....	....	39. Arizona
....	....	3	4	2.70	....	468	4	34	145	40. Colorado
26	27.11	3	3	2.75	172	333	....	....	....	41. Kansas
....	....	....	....	....	....	50	....	....	....	42. Nevada
2	8.00	....	....	....	....	182	....	....	.....	43. New Mexico
21	35.70	....	....	....	265	891	....	....	....	44. Oklahoma
47	43.42	....	....	....	....	186	2	4	....	45. Texas
1	4.00	....	....	....	....	71	2	22	....	46. Utah
										Pacific Coast States
296	279.17	12	13	23.84	....	1,496	7	69	950	47. California
21	176.25	1	1	2.00	....	100	....	....	....	48. Oregon
106	178.52	....	....	....	280	900	....	....	....	49. Washington

Jordan Consolidated Rural High School, Salt Lake County, Utah, located in open country, with nearest community a mile away, drawing pupils from 12-mile radius.

19,656 Motor Buses Used by Rural Schools

470,000 Children Transported Daily by Motor Vehicles

1,424 New School Consolidations This Year, 200 in North Carolina

(Note that the total figures are very conservative, as they are the actual totals from figures reported by 2,310 of 3,309 County Superintendents in the United States.)

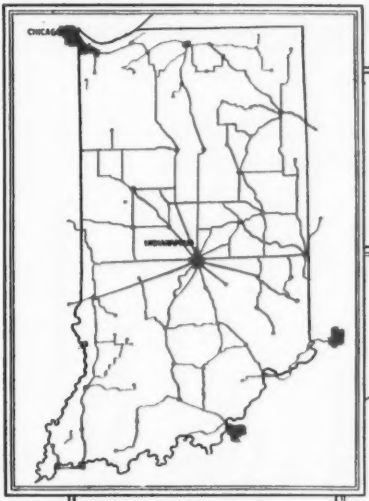
STATE	No. of Counties Reporting	No. of Counties in State	No. of Consolidated Schools in State	No. of Consolidations effected in 1924	Total No. of children transported to schools at county expense	No. of children transported by motor vehicles	Total No. motor buses used by Consolidated Schools
Alabama	43	67	235	54	19,703	14,573	450*
Arizona	5	75	7	3	1,555	1,555	28
Arkansas	28	69	120	16	2,025	2,000	84
California	38	58	164	10	15,264	19,909	1,496
Colorado	24	63	88	1	8,258	6,393	468
Connecticut	12	34	56	8	2,941	2,190	69
Delaware	3	3	11	4	3,216	1,791	60
Florida	34	61	187	53	10,508	9,860	328
Georgia	66	160	361	86	23,171	22,518	532
Idaho	11	44	18	1	2,245	925	15
Illinois	64	101	124*	6	1,908	2,175	89
Indiana	60	92	732	72	67,937	43,304	1,729
Iowa	63	98	254	..	30,004	15,315	1,023*
Kansas	105	105	172	9	6,232	6,000	342
Kentucky	122	122	344	36	4,000	3,000	200
Louisiana	54	54	1,220	25	38,135	15,000	553
Maine	64	126	110	19	4,419	1,985	102
Maryland	14	23	87	55*	6,500*	4,180	130
Massachusetts	40	77	96	7	7,401	4,909	250*
Michigan	42	83	70	6	7,114	6,312	234
Minnesota	86	86	376	13	29,772	10,000	342
Mississippi	62	62	950	100	52,000	33,200	1,539
Missouri	59	114	249	10	1,538	808	28
Montana	54	54	98	6	5,634	..	677
Nebraska	93	93	98	34	4,530	3,042	156
Nevada	5	5	10	1	550	500	50
New Hampshire	21	53	33	2	1,527	862	24
New Jersey	21	21	200	12	34,102	19,641	494
New Mexico	13	31	82	5	3,603	3,109	182
New York	132	58	227	34	3,366	3,440	192
North Dakota	63	53	534	85	40,431	25,364	815
Ohio	45	88	520	38	61,921	32,231	1,236
Oklahoma	77	77	338	31	32,254	25,220	891
Oregon	20	36	46	5	1,308	1,229	100*
Pennsylvania	49	66	460*	45*	18,000*	10,079	600*
South Carolina	46	46	342	92	9,500	6,500	308
North Carolina	93	93	691	200	48,251	48,251	1,318
Rhode Island	12	12	5	1	12	..	5
South Dakota	51	67	78	..	3,499	2,463	115
Tennessee	53	95	352	70	8,447	5,577	153*
Texas	113	253	393	55	6,116	6,114	186
Utah	17	29	102	2	3,430	1,845	71
Vermont	16	16	24	..	938	324	13
Virginia	100	100	650*	65	20,000	16,000	400
Washington	39	39	337	26	24,000	20,000	900
West Virginia	24	55	114	15	2,108	1,603	588*
Wisconsin	42	71	49	2	9,323*	8,654*	47
Wyoming	12	21	24	5	793	583	44
Total	**2,310**	**3,309**	**11.838**	**1,424**	**689,489**	**470,533**	**19,656**

*State figure

Interurban Buses Gain in Popularity

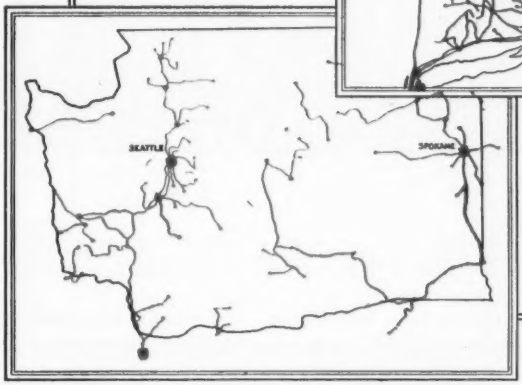
Three Typical Regions

(Indiana and Washington Maps from BUS TRANSPORTATION)



Left—Red lines are major bus routes in Indiana. 206 independent companies operate over 3400 miles in this State.

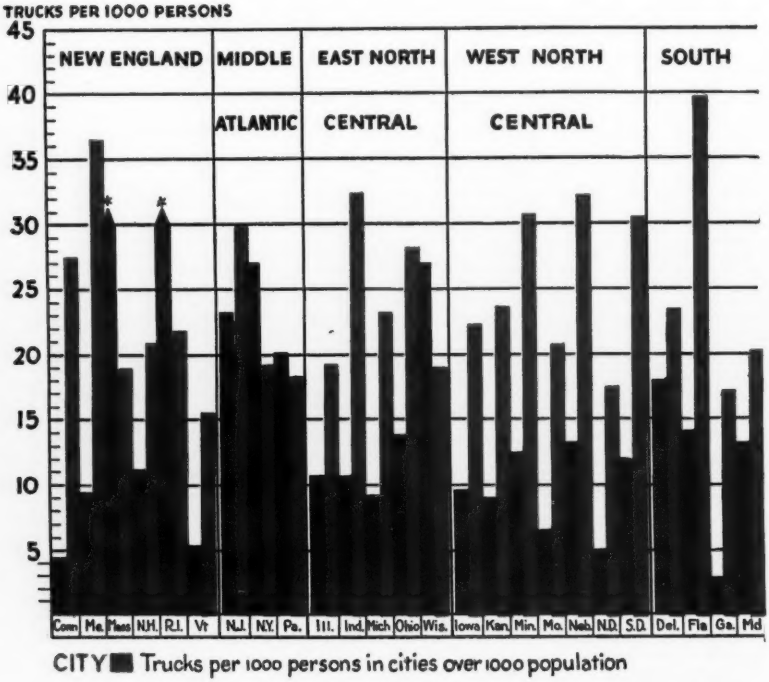
Right—Leading bus lines in New England. Map from *Boston Post*.



Left—State of Washington. Pacific Coast is a leader in bus development.

60,000 motor buses are now in operation in the United States. This is double the number of two or three years ago. About 3,250 are run by electric railways and steam roads, 20,000 by schools, and the remaining 36,750 by independents.

Farm Use of Trucks Greatest in Market Truck Use in Southern Sections

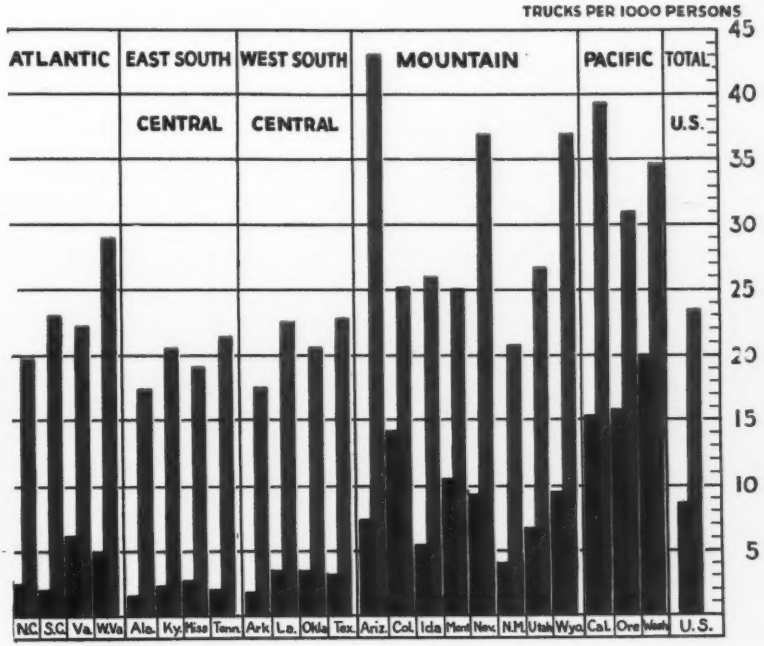


*Massachusetts and Rhode Island are not comparable with the other states due to a different local basis for differentiating rural from urban population. Population figures according to 1920 Census. Truck figures from R. L. Polk & Co., Detroit, Mich.

77.8% of truck registration is in cities above 1,000 population; truck use on farms and in towns under 1,000 people constitutes 22.2% of trucks in the United States. There are 8.5 trucks per 1,000 persons on farms as compared with 23.4 trucks per thousand people in cities.

The above chart shows the number of commercial cars and trucks per 1,000 persons on farms and in towns under 1,000 population as com-

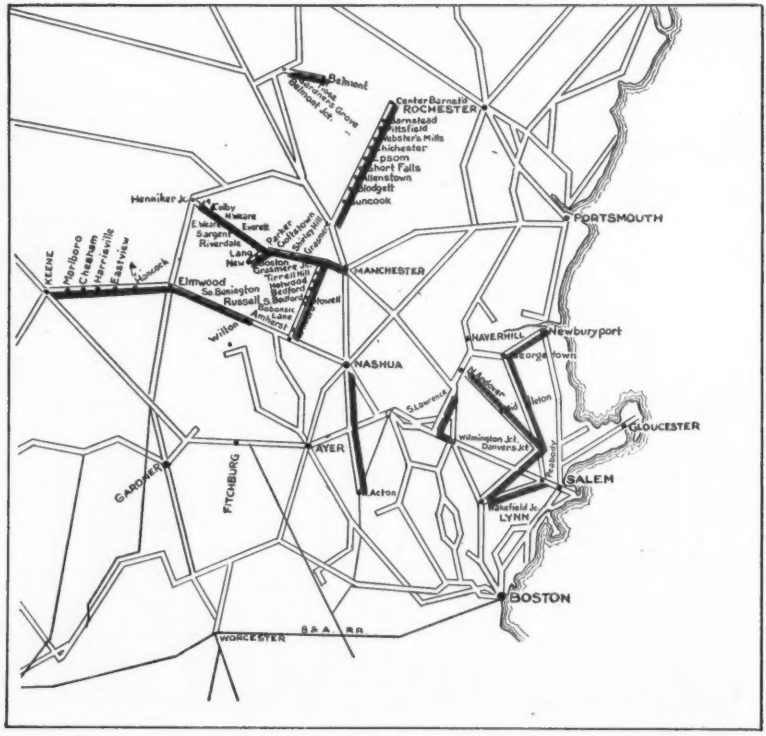
Gardening Centers of Northeastern States Preponderantly Urban



pared with the number of commercial cars and trucks per 1,000 people living in cities above 1,000 population.

The use of trucks relative to population is greatest in the northeastern section of the United States where vegetable gardening comprises a larger proportion of the farmer's activity than in western and southern portions of the country. The use of trucks in the South is very largely confined to cities.

Boston and Maine R. R. Uses Buses and Trucks to Stop Losses



Widespread use of buses and trucks is contemplated by the Boston and Maine Railroad to reduce operating losses on short-haul unprofitable routes. The map shows Boston and Maine motor vehicle service now in operation.

Aggregate losses annually on 180 miles of branch lines on the Boston and Maine Railroad which the railroad wishes to replace with motor bus and truck service are $536,656, according to W. A. Cole, attorney for the road.

Homer Loring, Chairman of the Boston and Maine executive committee, is authority for the statement that approximately 1,000 miles of line constitute a drain on the rest of the system, and that of the 2,450 miles of railroad, 45% handles only 3% of the business. Local committees of citizens in the communities affected are invited to determine how much bus service shall be given, and the fare to be paid.

Independent Bus Companies

Operating or Owning More Than 100 Buses*

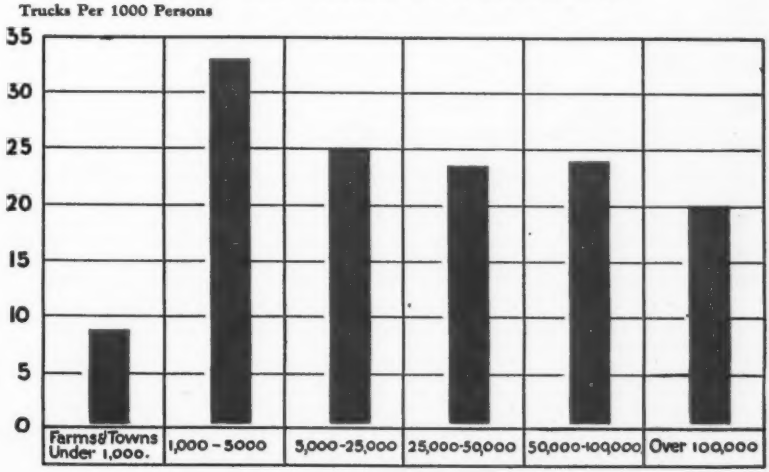
(As of January 1, 1925)

Name	No. of Routes	Miles of Route	No. of Buses
Motor Transit Co., 220 East Market St., Los Angeles, Calif.	24	1155.8	135
Pickwick Corp., 6th & Los Angeles St., Los Angeles, Calif.	7	1500.0	150
Rocky Mt. Parks Transp. Co., Estes Park, Colo.	1	240.0	108
Chicago Mtr. Coach Co., 4533 Wilcox St., Chicago, Ill.,	4	109	415
Detroit Motor Bus Co., 212 Bagley Ave., Detroit, Mich.	9	42.6	157
Peoples Motor Bus Co., 585 Adelaide Ave., St. Louis, Mo.	12	65.0	172
Fifth Ave. Coach Co., 605 W. 132nd St., New York, N. Y.	12	67.0	384
Yellowstone Park Transp. Co., Mammoth Hot Spgs., Wyo.,	1	750	299

* Figures from "Bus Transportation."

Note: 8,500 independent bus companies in the U. S. operate more than 31,000 motor buses.

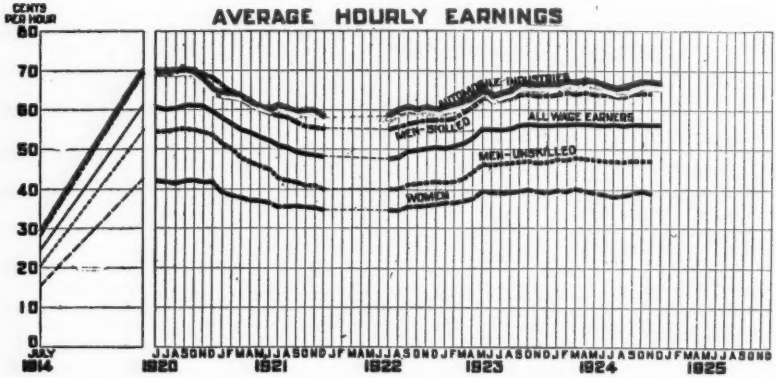
60% OF MOTOR TRUCKS IN CITIES OF 5,000 OR MORE POPULATION

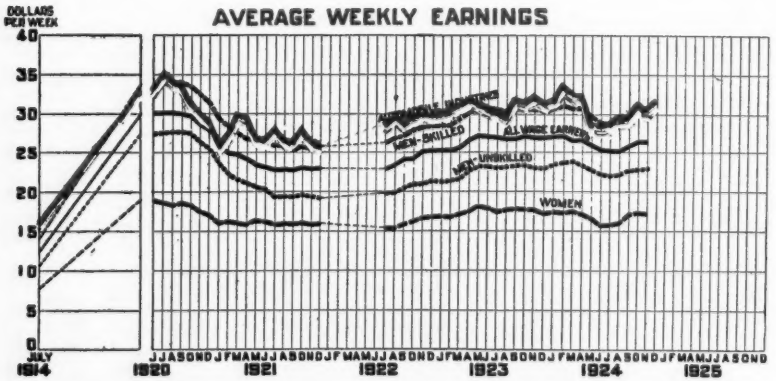


Automobile Wages Are Equal to or Above the Average of Skilled Workers' Wages in All Industries

WAGES—AUTOMOBILES AND ALL MANUFACTURING INDUSTRIES

United States





"Automobile Industries," the red line, represents average earnings of wage earners in sixty-seven automobile manufacturing establishments, covering about 90,000 wage earners.

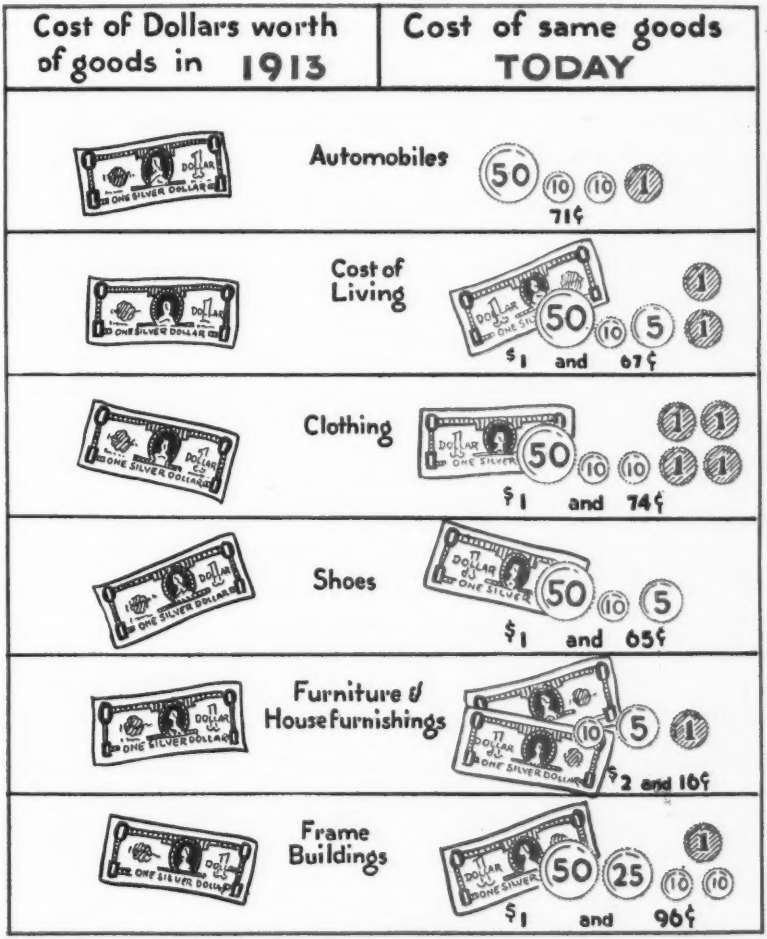
"All Wage Earners," the solid black line, is an average of the 23 industries weighted according to the number of wage earners in each industry as reported in the Census.

"All Industries," illustrated in the various black lines, represents the average earnings of wage earners in 23 major manufacturing industries covering 1700 establishments with about 700,000 wage earners.

Figures are from current studies of the National Industrial Conference Board. Breaks in the lines indicate figures not available for that period.

Automobiles Cost 29% Less, Other Commodities 67% More, Than in 1913

Comparison in Costs of Motor Cars and Other Family Purchases Today Compared with 1913

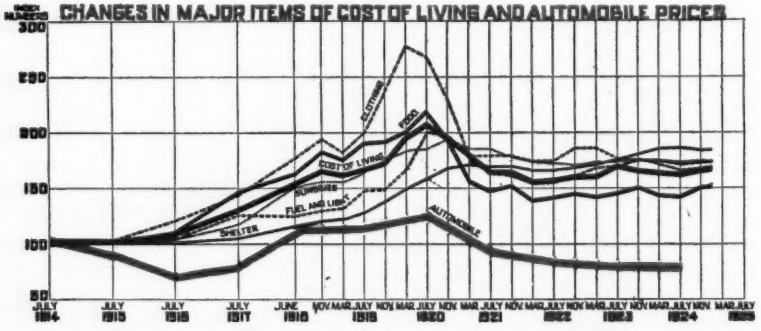


Sources: Cost of living and clothing from National Industrial Conference Board; shoes and furniture from U. S. Bureau of Labor Statistics; building costs from Survey of Current Business. Automobile costs obtained by dividing number produced into total value.

Automobile Prices Below Pre-War

While Major Items in Cost of Living Are Much Higher

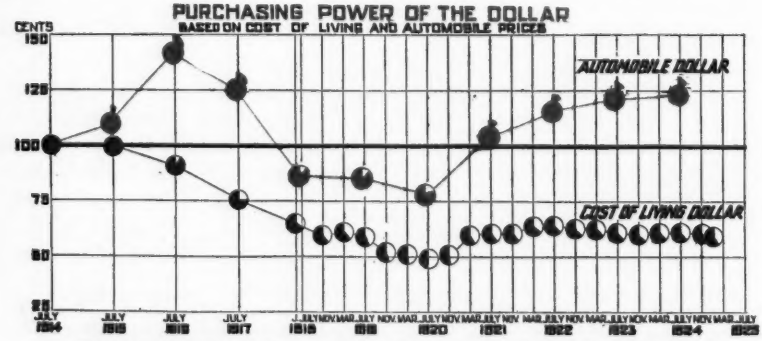
COST OF LIVING AND AUTOMOBILE PRICES
United States
CHANGES RELATIVE TO JULY 1914 AS BASE 100



"Cost of Living" figures from National Industrial Conference Board; automobile figures from National Automobile Chamber of Commerce.

"Automobile," the red line in the chart, represents the average selling price of all passenger cars produced annually. It reflects a greater proportion of low-priced cars produced as well as a general decrease in automobile prices since 1914.

"Cost of Living," the heaviest black line in the chart, represents the average changes in the cost of the five major items in the family budget weighted according to the distribution of family expenditure as of wage earners calculated for 1914.



The chart shows decreased purchasing value of the dollar in terms of general cost of living resulting from the increase in prices of major items of the family budget; but there is an increase in the purchasing power of the automobile dollar resulting from the decrease in the average price of cars.

What the Farmer Pays for His Automobile Today

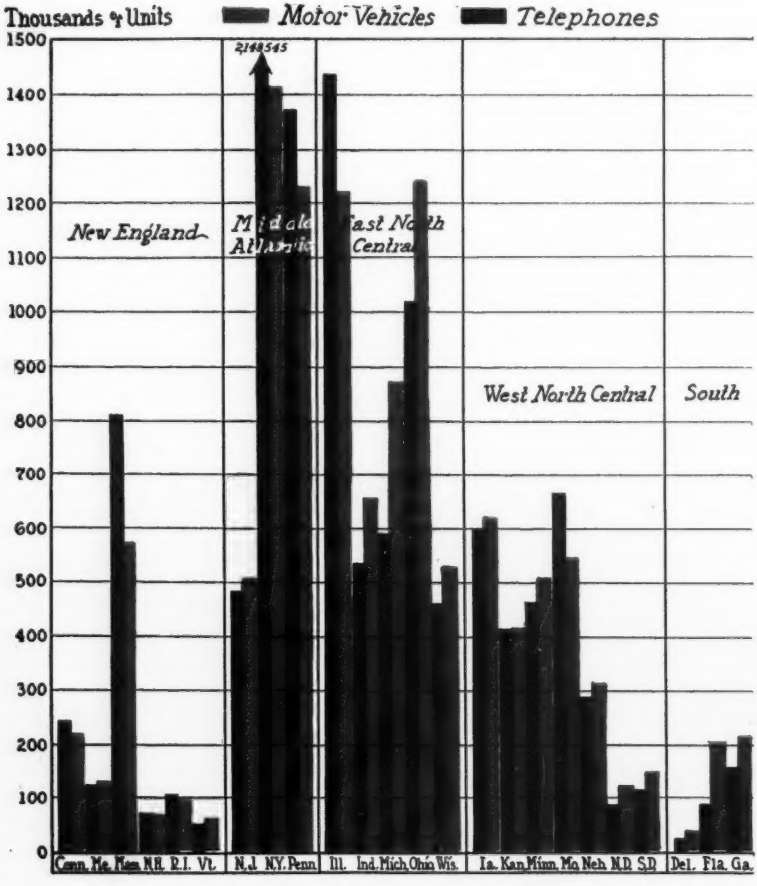
Compared with 1913

Farmer paid in 1913	Farmer pays TODAY	In terms of commodities the average automobile costs TODAY following % of 1913.
 WHEAT 1482 BU.	 506 BU.	34.2%
 CORN 2321 BU.	 732 BU.	31.5%
 COTTON 19·26 BALES	 7·22 BALES	37.5%
 WOOL 6214 LBS.	 1916 LBS.	30.8%
 CATTLE, BEEF 21,406 LBS.	 14,565 LBS.	68.0%
 HOGS 17,074 LBS.	 8806 LBS.	51.6%

In terms of wheat, corn, cotton and wool the farmer pays about one-third of what he paid in 1913 for his motor transportation. Source of figures: U. S. Dept. of Agriculture. Jan. 15th average prices on the farm, 1913 and 1925. Average automobile price obtained by dividing number produced into the aggregate value.

Telephone and Automobile

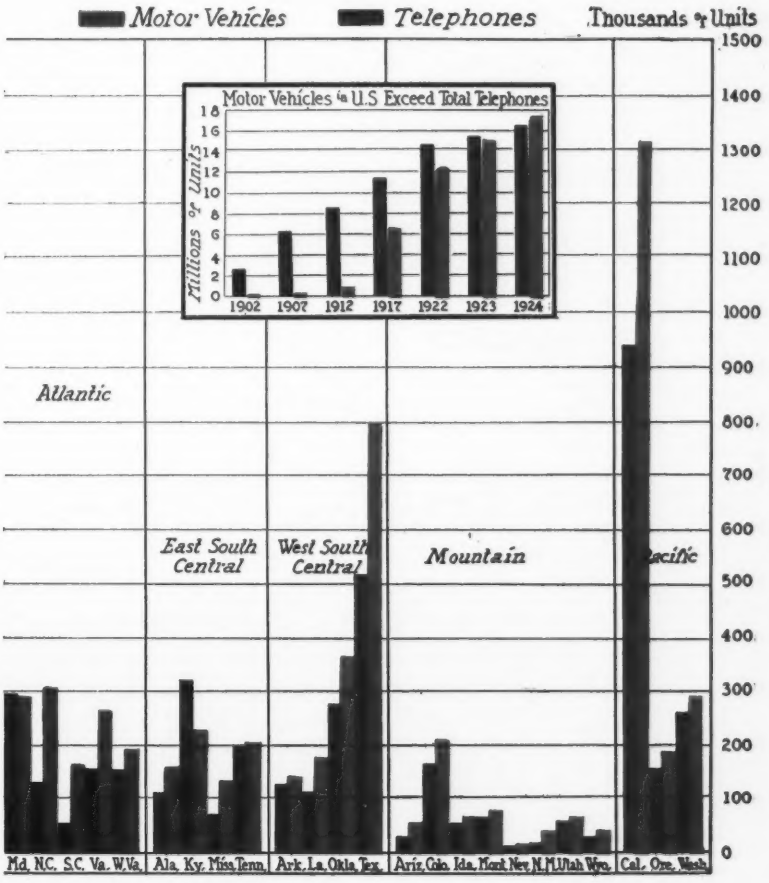
Northeastern Sections Have Most Telephones Lowest in Both Telephone and



The number of telephones in a state is a very good index of the number of motor vehicles in use in that state. In more technical words there is a very high correlation between telephone and automobile use by states. In the Middle Atlantic and East North Central sections the number of telephones in use is greatest, so is the registration of motor vehicles. In the Mountain and Southern sections of U. S., the number of telephones is few; so is the

Distribution by States Very Similar

as Well as Automobiles; Southern and Mountain Sections Automobile Registration

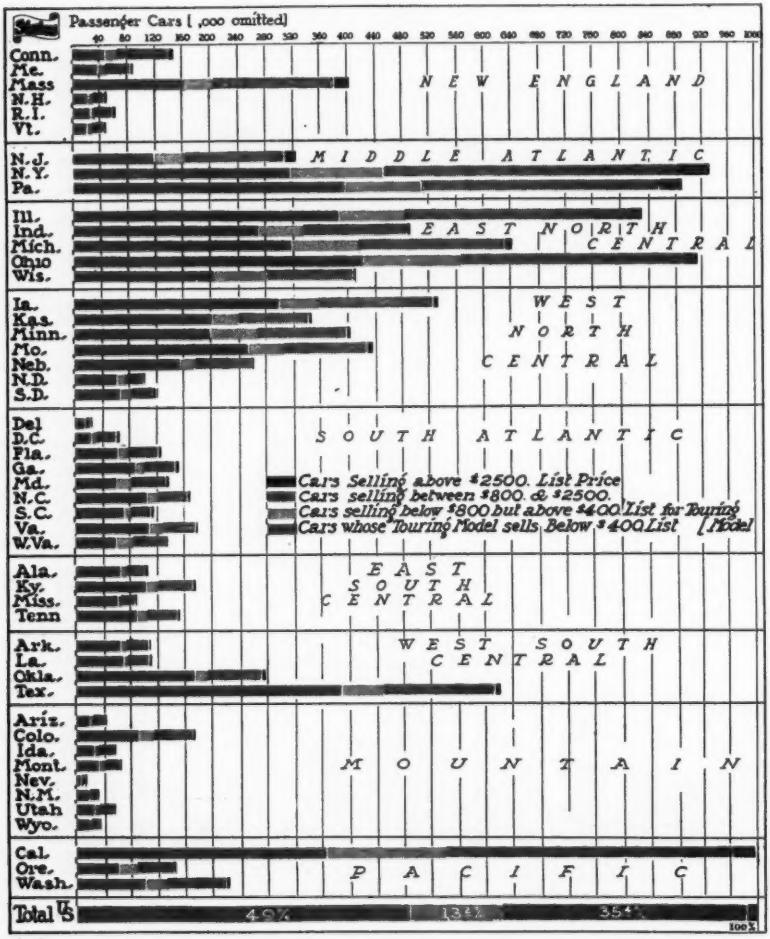


number of motor vehicles registered. New York state is exception to the above statements due to the presence of New York City with extraordinary demand for telephones and less use for automobiles.

Sources of figures: 1924 motor vehicles from U. S. Bureau of Public Roads; 1924 telephones based on 1922 Census of Electrical Industries, assumption being that per cent annual increase 1924 over 1923 was the same as 1923 over 1922.

Agricultural Mid-West Best Market for Low Priced Cars

62.2% of Cars in Use List Under $800—Northeastern States Show Relatively Greatest Use of Medium and High Priced Makes



The above chart shows the distribution of passenger cars by price groups in 1923. 49% of all cars in use sold at a list price of under $400 for touring model. 62.2% of all cars in use listed at $800 or less. 35.4% are medium priced cars which sold between $800 and $2500 list price. 2.4% of the cars registered sold above $2500. Source of figures: R. L. Polk & Co., Detroit, Mich.

Highways--1924

MILEAGE

Miles of highways in United States, Jan., 1925..	2,866,061
Miles of surfaced highways, federal, state and local, Jan. 1, 1925, approx.....	470,000
Miles of highways surfaced in 1924, approximately.....	40,000

FEDERAL AID

Miles in Federal Aid Approved System, Jan. 1, 1925.....	174,350
Projects completed since passage Federal Aid Act, miles, 1916, to Dec. 31, 1924, miles.....	37,117
Projects under construction, Dec. 31, 1924, miles.....	17,837
Projects approved for construction, ...	2,108

EXPENDITURES

Total cost of Federal Aid projects to date.....	$632,487,440.53
Federal Aid share.....	$276,305,407.66

Total 1924 highway expenditures.....	$990,683,770.00

174,350 Miles in Federal Aid Highway System

(Figures as of Jan. 1, 1925, from U. S. Dept. of Agriculture, Bureau of Public Roads)

States	Certified Total Mileage	Mileage Approved Systems	States	Certified Total Mileage	Mileage Approved Systems
Alabama	56,551	3,872.00	Nevada	22,000	1,422.00
Arizona	21,400	1,498.00	New Hampshire	14,112	977.39
Arkansas	71,960	5,007.03	New Jersey	17,120	1,198.30
California	70,000	4,467.60	New Mexico	47,607	3,134.00
Colorado	48,000	3,270.90	New York	81,873	4,475.30
Connecticut	12,000	835.43	North Carolina	63,863	3,710.30
Delaware	3,800	308.25	North Dakota	106,202	4,855.00
Florida	27,548	1,883.00	Ohio	84,497	5,697.00
Georgia	80,892	5,450.00	Oklahoma	112,698	5,589.50
Idaho	40,200	2,768.60	Oregon	41,826	2,814.00
Illinois	96,771	5,002.22	Pennsylvania	90,000	3,670.55
Indiana	70,946	3,957.48	Rhode Island	2,368	196.83
Iowa	109,113	7,218.50	South Carolina	52,318	3,047.00
Kansas	124,143	7,147.00	South Dakota	115,390	5,457.00
Kentucky	53,000	3,300.20	Tennessee	65,204	3,122.20
Louisiana	40,000	2,681.00	Texas	182,816	10,932.00
Maine	23,104	1,393.46	Utah	24,057	1,588.00
Maryland	14,810	1,420.74	Vermont	14,900	1,043.00
Massachusetts	20,525	1,308.00	Virginia	53,338	3,068.20
Michigan	75,000	4,595.00	Washington	42,428	2,907.70
Minnesota	103,050	6,849.60	West Virginia	31,629	1,918.50
Mississippi	53,000	3,322.00	Wisconsin	78,800	5,493.36
Missouri	111,510	7,530.00	Wyoming	46,320	3,012.50
Montana	67,100	4,366.00			
Nebraska	80,272	5,489.00	**Total**	**2,866,061**	**174,350.64***

*For table giving status of Federal Aid Construction, see Index.

SNOW REMOVAL

White lines show roads where snow removal is provided

State and County Supervision of Road Funds

To Be 53% in 1925 Compared with 51% in 1924

1925 ESTIMATED TOTAL RURAL HIGHWAY EXPENDITURES
(Bureau Public Roads Figures)

To be expended by or under supervision of State Highway Departments $538,000,000

To be expended by local units (County and Township) $464,000,000

Total $1,002,000,000, exclusive of interest and principal payments

1924 ESTIMATED TOTAL RURAL HIGHWAY EXPENDITURES
(Bureau of Public Roads Figures)

Expended by or under State Highway Department supervision $511,496,770

Expended by or under local units (County and Township) $479,187,000

Total $990,683,770, exclusive of interest and principal payments

Who pays for the Highways ?

Total highway expenditures for 1923, according to estimates of the U. S. Bureau of Public Roads were $943,339,148.

58% of this expenditure was paid for from bonds and various forms of taxation, including $75,000,000 personal property taxes on automobiles.

3.6% of the total, included in the 58%, is the railroads' share of the general tax funds devoted to highway purposes.

42% of the bill was borne by motor vehicle special taxes.

Referring to the chart above the figures are as follows:

(a) Motor vehicles in 1923 paid in special taxes the equivalent of 42%, or $396,548,000.

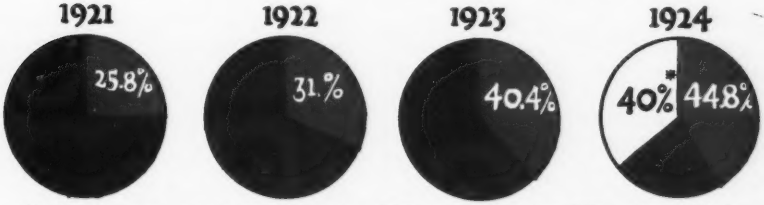
(b) Bonds, current general property taxes, Federal aid, and miscellaneous paid the equivalent of 58% or $535,338,000.

(c) Which is part of (b), railroads paid the equivalent of 3.6% or $34,163,692.

Motor Vehicle Taxes Approach Total Highway Expenditures

(Basic Figures from Bureau Public Roads, except Excise Tax Figures from Bureau Internal Revenue)

Comparison of Motor Vehicle Taxes to Highway Expenditures



Municipal taxes not available for all four years. With municipal included, 1923 motor vehicle taxes are 42%; 1924, 46%.

Motor Vehicle Taxes comprise:

Personal property taxes etc., not included.

	1921	1922	1923	1924
Registration fees.....	$122,500,000	$152,000,000	$189,000,000	$225,492,000
Federal Excise Taxes..	117,300,000	114,800,000	155,800,000	139,202,000
Gasoline Taxes.....	5,300,000	12,000,000	36,800,000	79,734,000
	$245,100,000	**$278,800,000**	**$381,600,000**	**$444,428,000**
Highway Expenditures	**$947,306,826**	**$898,352,307**	**$943,339,148**	***$990,683,770**

*"Since about 40% of the highway expenditures are met by borrowings, the time is rapidly approaching when special motor vehicle taxes will equal the expenditures on highways, both primary and local, from current tax receipts."—*National Tax Association.*

Federal Highway Payments Only 47½% of Receipts from Federal Motor Vehicle Excise Taxes

Federal Aid Payments
1917-1925 Fiscal Years up to Jan.1, 1925.

$380,528,813

Federal Motor Excise Taxes
1917-1925 Fiscal Years up to Jan. 1, 1925.

$799,385,399

Federal Aid payment figures from U. S. Bureau of Public Roads. Federal motor excise tax figures from U. S. Bureau of Internal Revenue.

How Railroads Profit from Automobile Industry

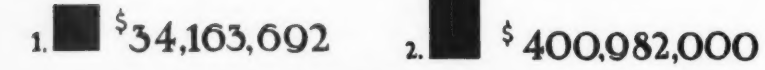
Total Railroad Contributions to Highways $34,163,692
Total Railroad Receipts from Motor Products $400,938,000

1923

What they paid toward highway construction.

What they got in return in carriage of vehicles, gasoline, and road materials.

RATIO
12 to 1



1. Railroad taxes in 1923 amounted to $331,915,459. Studies by the Bureau of Public Roads show that in 1921 but 12.4 cents of each tax dollar was used for highways. Since that time motor vehicles have contributed a larger and larger share of highway expenses, with current general property taxation contributing probably less, and, at the most, no more than the 1921 average. Two per cent of the Federal taxes were used for highway payments. Using these percentages, therefore, as applied to the railroad taxes, plus assessments on the railroads, for public improvements and paving gives a total of $34,163,692

2. Commodity revenue statistics of the Interstate Commerce Commission for 1923, show the following approximate freight revenues to the railroads; for which the automobile can be said to be responsible:

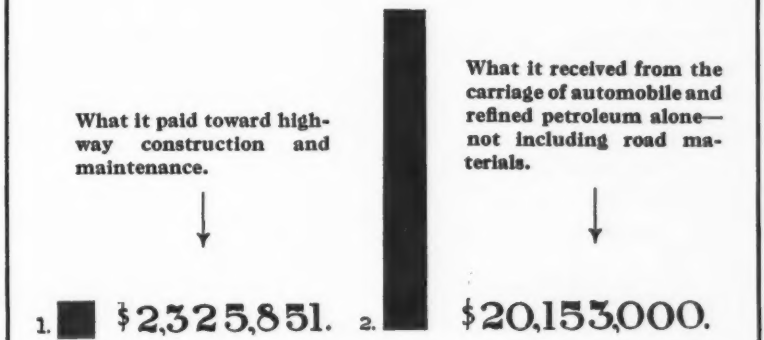
*Refined petroleum and its products	$206,264,000
Automobiles, motor trucks, accessories	142,319,000
Road Building:	
Asphaltum (all)	9,672,000
Clay, gravel, sand, stone (25%)	30,222,250
Cement (25%)	12,504,500
	$400,981,750
Percentage of total rail freight income	8.7%

*While not all refined petroleum is used by motor vehicles, any excess in this figure is more than offset by revenues for hauling tires, and raw materials for automobile manufacture.

One Railroad's Contributions to and Benefits from the Highways

1923

* * *



The amount of $20,153,000 received from automotive products was equal to 7.4% of the total freight income of this railroad in 1923.

Federal Aid Highway Payments to States Total But 47.5% of Federal Motor Vehicle Excise Tax Collected

By Fiscal Years (July 1 to June 30)

Year	Federal Aid Payments to States	Motor Vehicle Excise Tax Collections
1917	None	In effect Oct. 4, 1917
1918	$425,446.00	$23,981,268.35
1919	2,702,248.00	48,834,271.47
1920	19,593,431.00	143,922,792.01
1921	55,974,306.00	115,546,249.31
1922	88,205,933.00	104,433,762.75
1923	69,677,242.00	144,290,490.28
1924	79,217,398.00	158,014,709.40
1925 (First 6 months)	64,732,810.00	60,361,855.67
Total	**$380,528,813.00**	**$799,385,399.24**

$461,400,000

Special Motor Vehicle Taxes in 1924

Plus $90,000,000 Personal Property Levies, Making Grand Total of $551,400,000

(Federal Figures from U. S. Bureau of Internal Revenue, State Figures from U. S. Bureau of Public Roads, Municipal Figures from National Automobile Chamber of Commerce)

FEDERAL

1.	Passenger Car	$101,123,621.75	
2.	Commercial Vehicle	10,335,369.14	
3.	Parts, Tires and Accessories	27,742,764.12	
			$139,201,755.01
4.	Vehicles for Hire		2,013,839.00
			$141,215,594.01

STATE

1.	Registration Fees, including Drivers' Licenses	$225,492.252.00	
2.	Gasoline Taxes	79,734,490.00	
3.	Personal Property Taxes	$ 90,000,000.00	
			$395,226,742.00

MUNICIPAL

	Municipal Taxes on the Motor Vehicle	*$15,000,000.00	
			$ 15,000,000.00
			$551,442,336.00

*Estimated by National Automobile Chamber of Commerce.

Typical Traffic Survey

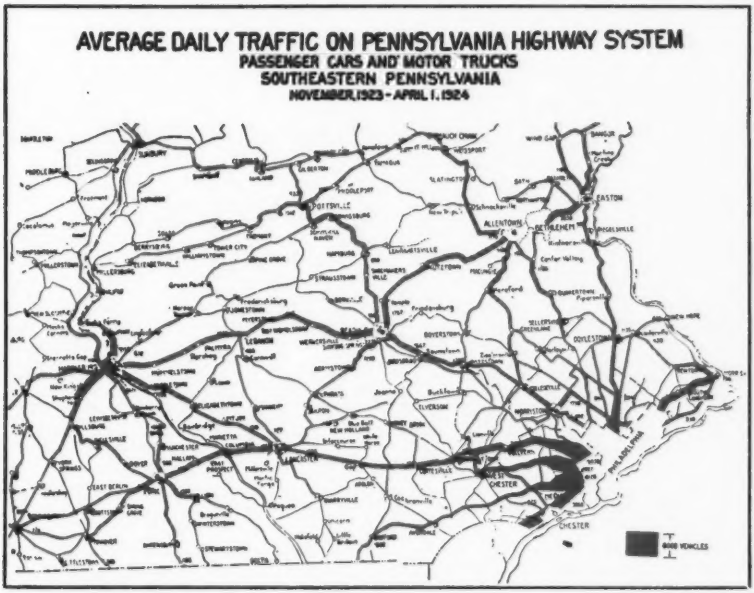


Chart from "American Highways."

Many states are now making surveys of their highway traffic in collaboration with the U. S. Bureau of Public Roads.

The illustration is based on the Pennsylvania traffic survey made by the State Department of Highways in conjunction with the U. S. Bureau of Public Roads. Average density of traffic as shown above is indicated by the width of the red square which is 8,000 vehicles daily.

Types of Road Surface in Statement of Completed Federal Highway Mileage

Types	Total to Dec. 31, 1924	Completed During Year	Total to Dec. 31, 1923
Graded and Drained	8,512.9	2,036.7	6,476.2
Sand-clay	4,177.4	884.4	3,293.0
Gravel	15,868.4	3,521.3	12,347.1
Waterbound Macadam	937.5	61.3	876.2
Bituminous Macadam	2,125.1	687.0	1,438.1
Bituminous Concrete	1,152.0	270.4	881.6
Portland Cement Concrete	8,202.2	2,615.0	5,587.2
Brick	622.7	139.5	483.2
Bridges and Approaches	69.6	22.1	47.5
Totals	*41,667.8	10,237.7	*31,430.1

*Includes 4,550 miles completed but not paid for.

State Motor Vehicle Taxes Pay Increasing Part of Total Highway Expenditures

(Figures and Chart from U. S. Bureau of Public Roads)

(Totals by States for 1923)

	Highway Cost	Motor Tax	Per Cent
Alabama	$7,771,268	$2,674,103	34.4
Arizona	9,562,166	755,794	7.9
Arkansas	12,292,781	1,654,289	13.5
California	46,886,633	13,127,437	28.0
Colorado	10,334,618	1,972,572	19.1
Connecticut	9,118,682	5,209,655	57.0
Delaware	3,944,090	604,788	15.3
Florida	10,549,971	3,604,108	34.1
Georgia	8,878,320	3,658,910	41.2
Idaho	4,784,041	1,310,502	27.4
Illinois	50,496,350	9,653,796	19.1
Indiana	40,689,112	6,600,143	16.2
Iowa	33,401,849	8,827,063	26.5
Kansas	21,709,498	3,435,606	15.8
Kentucky	13,884,050	3,359,168	24.2
Louisiana	12,786,192	3,945,679	30.9
Maine	9,467,482	1,946,345	20.8
Maryland	7,497,713	4,225,259	56.2
Massachusetts	10,843,800	6,989,633	64.5
Michigan	55,516,403	10,500,786	18.9
Minnesota	33,644,891	7,316,772	21.8
Mississippi	18,078,341	1,545,472	8.5
Missouri	18,913,961	4,016,384	21.2
Montana	3,635,170	1,170,871	32.2
Nebraska	9,134,304	3,353,175	36.6
Nevada	2,240,623	269,731	12.0
New Hampshire	4,047,980	1,734,391	42.9
New Jersey	34,195,623	7,653,780	22.4
New Mexico	4,159,433	460,000	11.1
New York	48,952,729	19,862,442	40.6
North Carolina	24,949,161	6,637,949	26.6
North Dakota	5,417,705	1,221,934	22.5
Ohio	48,234,644	9,662,370	20.0
Oklahoma	10,721,964	3,816,771	35.5
Oregon	15,851,436	6,027,751	38.2
Pennsylvania	80,699,582	21,335,826	26.4
Rhode Island	2,414,704	1,286,659	53.2
South Carolina	9,810,758	2,414,061	24.5
South Dakota	12,116,778	1,755,652	14.5
Tennessee	11,659,311	2,862,010	24.6
Texas	56,022,344	6,657,132	11.9
Utah	3,909,295	834,191	21.4
Vermont	2,882,200	1,107,033	58.8
Virginia	15,143,391	4,757,083	31.5
Washington	17,564,039	5,123,747	29.2
West Virginia	12,546,208	2,974,998	23.7
Wisconsin	41,706,869	4,958,934	11.8
Wyoming	2,818,372	554,258	19.7
	$931,886,835	$225,427,013	24.2

RATIO OF STATE TAXES TO TOTAL HIGHWAY COST—1921, 1922, 1923

State motor vehicle taxes are paying an increasing part of the state highway expenditures, as is seen by comparsion of the charts.

1924 figures by states are not yet available, but the proportion of these taxes to highway costs is estimated at 33⅓%.

These totals do not include Federal Excise Taxes which bring the proportion of highway cost borne by the motor vehicle to 45%

Gasoline Taxes 1924

Only 15 Out of 35 States Devote Total Amount of Fuel Revenue to State Highway Purposes

(Figures from Bureau of Public Roads, U. S. Department of Agriculture)

TAX RATES, GROSS RECEIPTS, AND DISTRIBUTION OF RECEIPTS

STATES AND D. C.	Tax Rate Cents per Gallon Dec. 31 1924	Gross Gasoline Tax Receipts Year 1924	DISTRIBUTION OF GROSS RECEIPTS APPLIED TO ROAD WORK			
			Supervision State Highway Dept.	To County and Local Road Funds	For Miscellaneous Purposes[2]	Available for state Highway Dept. Work
Alabama	2	$1,738,661	.....	100%	.....	....
Arizona	3	730,838	$ 365,419	50%	.....	50%
Arkansas	4	2,768,535	2,268,535	Balance	.....	82%
California[1]	2	11,993,222	5,996,611	50%	.....	41%
Colorado	2	1,725,957	819,830	47½%	5%, Collection Cost	47%
Connecticut[1]	1	978,283	978,283	.....	.....	100%
Delaware	2	304,392	304,392	.....	.....	100%
Florida	3	3,658,677	2,575,199	33⅓%	[3]	70%
Georgia	3	4,527,471	1,509,157	33⅓%	33⅓%, St. Gen. Fund	33%
Idaho	2	545,672	545,672	.....	.....	100%
Illinois	....	.....	.....	.....	.....	....
Indiana	2	4,925,372	4,187,855	$625,000	[3]	85%
Iowa	....	.....	.....	.....	.....	....
Kansas	....	.....	.....	.....	.....	....
Kentucky	3	1,660,938	1,660,938	.....	.....	100%
Louisiana	2	1,335,320	1,335,320	.....	.....	100%
Maine	1	522,250	522,250	.....	.....	100%
Maryland	2	1,588,422	1,111,895	.....	Bal. "Road Deficiency Fund"	70%
Massachusetts	....	.....	.....	.....	.....	....
Michigan	....	.....	.....	.....	.....	....
Minnesota	....	.....	.....	.....	.....	....
Mississippi[1]	3	1,648,748	787,319	[4]50%	.....	48%
Missouri	....	.....	.....	.....	.....	....
Montana	2	619,295	123,859	40%	40%, St. Gen. Fund	20%
Nebraska	....	.....	.....	.....	.....	....
Nevada	2	162,596	60,000	Balance	.....	37%
N. Hampshire	2	587,845	587,845	.....	.....	100%
New Jersey	....	.....	.....	.....	.....	....
New Mexico	1	194,983	185,234	.....	Bal. St. Fish Hatcheries	95%
New York	....	.....	.....	.....	.....	....
N. Carolina	3	4,529,048	[4]4,520,000	.....	Bal. Collection Cost	100%
N. Dakota	1	442,969	.....	.....	100%, State General Fund	....
Ohio	....	.....	.....	.....	.....	....
Oklahoma	2.5	2,983,501	1,544,600	[4]60%	.....	52%
Oregon	3	2,698,778	2,582,890	.....	Bal. Refunds and Expenses	96%
Pennsylvania	2	9,089,541	.....	25%	75%, State General Fund	....
Rhode Island	....	.....	.....	.....	.....	....
S. Carolina[1]	3	2,186,137	728,889	33⅓%	33⅓%, State General Fund	33%
S. Dakota	2	1,205,155	1,106,635	.....	[3]	92%
Tennessee	2	1,812,235	1,812,235	.....	.....	100%
Texas	1	3,892,769	2,919,577	.....	25%, Free Schools Fund	75%
Utah[1]	2.5	684,361	682,985	.....	.....	100%
Vermont[1]	1	230,865	230,865	.....	.....	100%
Virginia	3	3,313,188	[2]2,208,571	33⅓%	.....	67%
Washington	2	[2]2,635,411	[2]2,635,411	.....	.....	100%
W. Virginia	2	1,231,944	1,231,944	.....	.....	100%
Wisconsin	....	.....	.....	.....	.....	....
Wyoming	1	200,319	200,319	.....	.....	100%
Dist. of Col.	2	380,792	380,792	.....	.....	100%
Totals		**$79,734,490**	**$48,711,326**			**65%**

[1] Data given cover calendar years, except for the following States, where fiscal years end as shown: California, Jan. 31st; Connecticut, June 30th; Mississippi, South Carolina, Utah and Vermont ,Nov. 30th.

In some cases the distribution in amounts and percentages do not balance. Cost of collection and refunds for gasoline used for other purposes than for motor vehicles may account for the differences in some States.

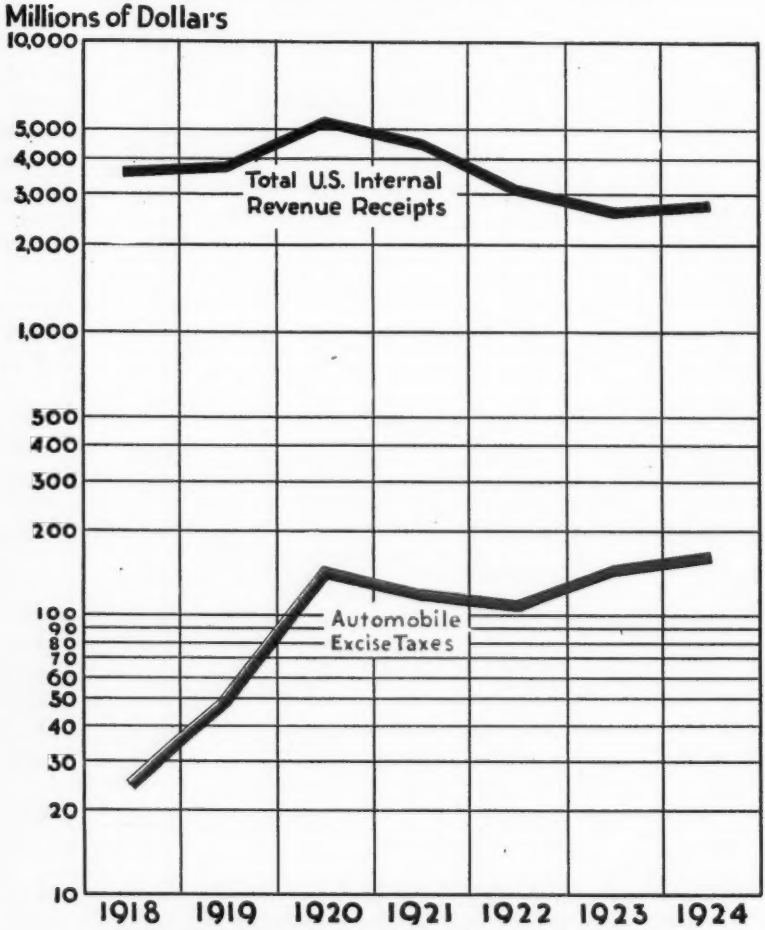
[2] This percentage became effective when the tax rate changed as shown here.

[3] Approximate.

[4] Month of December estimated.

Total Excise Taxes Heavier Than in War Time

$800,000,000 Federal Taxes Paid by Automobile Industry in 7 Years



Federal Excise Taxes on motor vehicles, levied as a war time measure, reached a new high total in the fiscal year 1924. See table at top of opposite page.

Federal Motor Vehicle Excise Taxes Compared to Total Internal Revenue Receipts

(Fiscal Year Figures; from Internal Revenue Bureau)

Fiscal Year	Total U. S. Internal Revenue Receipts	Excise Taxes on Motor Vehicles	% Total Receipts Paid by Auto Excise Taxes
1918	$3,696,043,485	$23,981,268 (9 Months)	.65%
1919	3,840,230,995	48,834,271	1.27%
1920	5,399,149,245	143,922,792	2.66%
1921	4,579,973,609	115,546,249	2.52%
1922	3,197,451,083	104,433,762	3.26%
1923	2,621,745,227	144,293,402	5.5%
1924	2,796,179,257	158,014,709	5.6%

Federal Motor Vehicle Excise Tax Collections—Fiscal Years 1918-1925

Year	Automobile, motorcycle, etc. 3 per cent	Motor Trucks 3 per cent	Automobiles and motorcycles 5 per cent	Tires, accessories, parts, etc. 5 per cent. (Also truck parts 3 per cent)	Total
1918 (9 mo.)..	$23,981,268.35	.....	.....	.....	$23,981,268.35
1919.....	24,076,261.97	$1,934,222.51	$17,915,510.81	$4,908,276.18	48,834,271.47
1920.....	.....	14,471,464.32	76,315,814.26	53,135,513.43	143,922,792.01
1921.....	.....	11,640,055.92	64,388,184.22	39,518,009.17	115,546,249.31
1922.....	.....	8,404,557.85	56,684,540.30	39,344,664.60	104,433,762.75
1923.....	.....	10,678,761.05	92,736,580.44	40,875,148.79	144,290,490.28
1924.....	.....	11,510,563.05	112,870,536.57	33,633,609.78	158,014,709.40
1925 (1st 6 mo. fiscal year†).	.....	4,333,708,23	43,576,048.78	12,452,098.66	60,361,855.67
Total....	**$48,057,530.32**	**$62,973,332.93**	**$464,487,215.38**	**$223,867,320.61**	**$799,385,399.24**

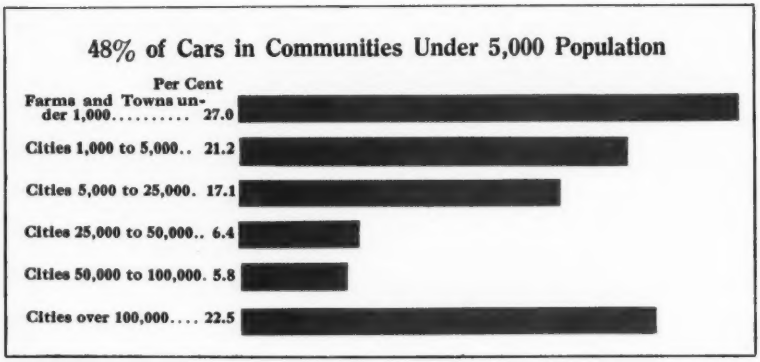
† i. e. Last six months calendar year 1924.

The tax on automobiles was first imposed by the War Revenue Act of 1917, effective October 4, 1917, at a rate of 3 per cent on the wholesale value.

Federal Motor Vehicle Excise Taxes—Calendar Years

(Source—Internal Revenue Bureau, U. S. Treasury Department)

Calendar Year	Motor Trucks	Automobiles and Motorcycles	Tires, Parts and and Accessories	Total
1917				3,323,089.43
1918				35,957,077.92
1919.....	$8,765,122.57	$52,860,310.36	$30,735,394.75	$101,138,190.65
1920.....	15,134,594.14	83,128,363.17	50,944,562.32	149,207,519.63
1921.....	8,245,404.22	51,237,358.20	40,484,660.39	99,967,422.81
1922.....	9,583,211.67	69,856,599.44	35,353,589.09	114,793,400.20
1923.....	10,909,631.19	106,280,962.46	38,606,349.94	155,796,943.59
1924.....	10,335,369.00	101,123,621.00	27,742,764.12	139,201,755.01
Total.....	**$62,973,332.93**	**$464,487,215.38**	**$223,867,320.61**	**$799,385,399.24**



Farm Organizations Oppose Motor Vehicle Excise Taxes

NATIONAL GRANGE

The automobile and the motor truck have become so necessary to agriculture, and to reasonably agreeable life in the country, that the best figures now indicate that one-third of the automobiles in use are owned by farmers, while the light truck is becoming indispensable to agriculture.

The tax provided for in the present law on repair parts seems to be unreasonable. It is a recurring tax and every automobile user should be relieved of it. The tax on trucks is a tax on necessary equipment, and should share in any plan of reduction, in a bill when other excise taxes are being generally removed or reduced. Neither does there seem to be any tenable reason why the manufacturers sales taxes on automobiles should not have the benefit of reasonable reductions.

—*National Grange.*

AMERICAN FARM BUREAU FEDERATION

The tax on parts is largely in the nature of a tax on misfortune and cannot well be justified at any time. In so far as the farmer is concerned the light trucks are his horse and wagon in these days of mechanical equipment and they should be freed, certainly in part if not in whole, from this tax.—*American Farm Bureau Federation.*

Excise Tax Reduction Would Benefit Millions of Persons

While the Congress of the United States is considering plans for tax reduction, including the recommendation by Secretary Mellon for repeal of some of the "nuisance" or "luxury" taxes, such as that on theatrical admissions, it would appear that the abolishment or substantial reduction of the special tax on motor vehicles might well be provided for. This tax, which adds directly to the cost of motor cars, trucks, tires and repair parts, was imposed as a war-revenue measure, and now that American budget conditions permit of lowered taxes in the interest of the consumers, there would seem to be no good reason why it should be retained. About one-third of all the motor cars in the United States are owned by farmers, to whom the added costs of the tax on the car, and on tires and repair parts, is a very considerable burden. The millions of farmers to whom the motor vehicle is a necessity, not a luxury, would welcome lower prices and cheaper repair parts. Nothing in the proposals for tax reduction so far submitted to the Congress would so directly result in immediate savings to many millions of persons of average means.

—*Christian Science Monitor, Jan. 22, 1924.*

21,264,752 Motor Vehicles in the World

83% of Cars and Trucks Are in U. S. A.

(Figures from Bureau of Foreign and Domestic Commerce, U. S. Department of Commerce)

Country	Pass. cars and trucks	Population in thousands	Ratio
Aden	435	55	126.
Alaska	950	60	63.
Algeria	17,400	5,802	333.
Angola	1,300	4,119	3,168.
Arabia	340	5,000	14,700.
Argentina	130,000	9,548	73.
Australia	198,000	5,497	28.
Austria	14,865	6,527	439.
Azores	360	243	675.
Bahama Islands	682	53	78.
Barbados	1,310	198	151.
Belgium	92,700	7,600	82.
Bolivia	1,092	2,820	2,582.
Brazil	41,750	30,636	734.
Br. E. Africa	3,064	11,082	3,617.
Br. Guiana	896	298	333.
Br. Malaya	13,500	2,439	181.
Br. S. Africa	55,750	8,464	152.
Br. W. Africa	6,550	20,424	3,118.
Bulgaria	1,003	4,958	4,943.
Canada	638,794	8,788	14.
Canary Island	2,550	482	189.
Ceylon	6,312	4,504	714.
Chile	10,000	3,805	381.
China	10,102	400,800	39,675.
Chosen	1,128	18,314	16,236.
Colombia	3,000	6,300	2,100.
Costa Rica	471	485	1,030.
Cuba	32,000	3,123	98.
Czechoslovakia	12,748	13,613	1,068.
Danzig	1,771	364	206.
Denmark	47,352	3,352	71.
Dom. Republic	2,210	897	406.
Dutch E. Indies	36,252	49,535	1,366.
Dutch Guiana	70	129	1,843.
Dutch W. Indies	400	56	140.
Ecuador	900	1,500	1,667.
Egypt	10,300	13,551	1,316.
Esthonia	742	1,111	1,497.
Finland	5,950	3,367	566.
France	575,000	39,403	69.
Fr. Guiana	62	44	710.
Fr. Indo-China	5,800	19,747	3,405.
Fr. W. Africa	1,000	12,284	12,284.
Germany	219,990	59,858	272.
Gibraltar	273	18	66.
Greece	5,500	5,447	990.
Grenada (B.W.I.)	235	67	285.
Guadeloupe	601	230	383.
Guatemala	920	2,119	2,303.
Haiti	1,000	2,045	2,045.
Hawaii	22,600	299	13.
Honduras	355	673	1,896.
Hongkong	1,452	625	430.
Hungary	4,610	7,946	1,724.
Iceland & Faroe Is.	325	95	292.
India	55,900	419,075	7,497.
Iraq (Mesopotamia)	800	2,849	3,561.
Irish Free State	25,500	3,160	124.
Italy	95,000	38,836	409.
Jamaica	3,600	858	238.
Japan	22,111	58,482	2,645.
Latvia	635	1,886	2,970.
Lithuania	493	2,011	4,079.
Madagascar	432	3,613	8,363.
Madeira Island	299	179	599.
Malta	694	225	324.
Martinique	1,025	244	238.
Mauritius	1,890	376	199.
Mexico	35,000	13,887	397.
Morocco	6,721	5,950	885.
Netherlands	34,000	7,087	208.
New Zealand	60,600	1,274	21.
Nicaragua	405	638	1,575.
Norway	21,000	2,650	126.
Palestine	964	756	784.
Panama	3,508	443	126.
Paraguay	411	1,000	2,433.
Persia	1,280	10,000	4,587.
Peru	4,900	4,620	943.
Philippine Is.	14,843	10,351	697.
Poland	12,789	29,160	2,280.
Porto Rico	11,456	1,347	118.
Portugal	9,700	5,629	580.
Portuguese E. Af.	1,300	3,120	2,400.
Rumania	8,200	17,393	2,121.
Russia	15,000	133,442	8,896.
Salvador	1,000	1,550	1,550.
Samoa	186	37	199.
Siam	2,600	9,322	3,585.
Society Is.	258	12	47.
Spain	70,000	21,347	305.
Sweden	62,589	5,988	96.
Switzerland	29,848	3,880	130.
Syria	2,885	2,092	725.
Taiwan	145	3,655	25,207.
Trinidad & Tobago	1,850	366	198.
Tunisia	3,926	2,095	534.
Turkey	2,600	14,549	5,596.
United Kingdom	770,839	44,148	57.
United States	17,591,981	113,494	6.
Uruguay	16,689	1,603	96.
Venezuela	4,400	3,000	682.
Yugoslavia	5,970	12,017	2,013.
Br. Honduras	111	45	405.
Newfoundland	797	264	331.
Total	**21,264,752**	**1,830,804**	**86.**

Exports 1924

Foreign consumption of American motor vehicles, including Canada		464,241*
Per cent foreign consumption to total American production		12%
Increase in automobile exports over 1923		17½%
Total exports of motor vehicles including assemblies abroad		386,580
Per cent exported		10%
Value of U. S. and Canadian exports combined		$269,042,261
Value of U. S. automotive exports		$237,539,612
Value of Canadian automotive exports		$31,502,649
Number of motor vehicles exported from U. S.		187,579
Cars	159,119	
Trucks	28,460	
Number of motor vehicles exported from Canada		56,655
Cars	43,883	
Trucks	12,772	
Rank among all U. S. exports		4th
Assemblies abroad of American motor vehicles		142,346
Leading U. S. motor car foreign market		Australia
Leading U. S. motor truck foreign market		Japan
Imports of motor vehicles		604

*For details of this figure see opposite page.

464,241

American Motor Vehicles Purchased Abroad in 1924

12 Per Cent of Total Consumption Including Canadian Figures

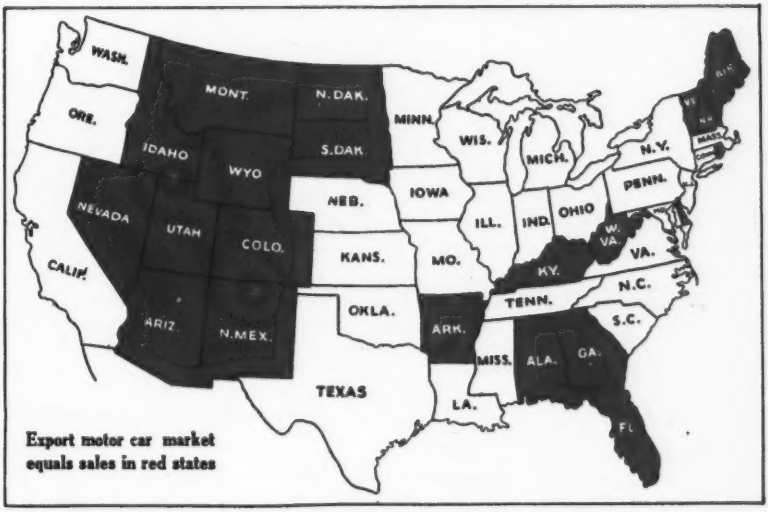
386,580 Were Actual Shipments and Foreign Assemblies—Remainder Were Canadian-American Products Consumed in Canada

Export Business Increased 17.5% in 1924

Complete export figures for the year 1924 show that there occurred an increase of 17.5% in the demand for American motor vehicles by foreign consumers. Shipments abroad of U. S. and Canadian passenger cars during the year just ended gained 6.5% over 1923. Exports of trucks increased 8% and shipments of parts for assembly into completed vehicles abroad gained 32.8% during the year.

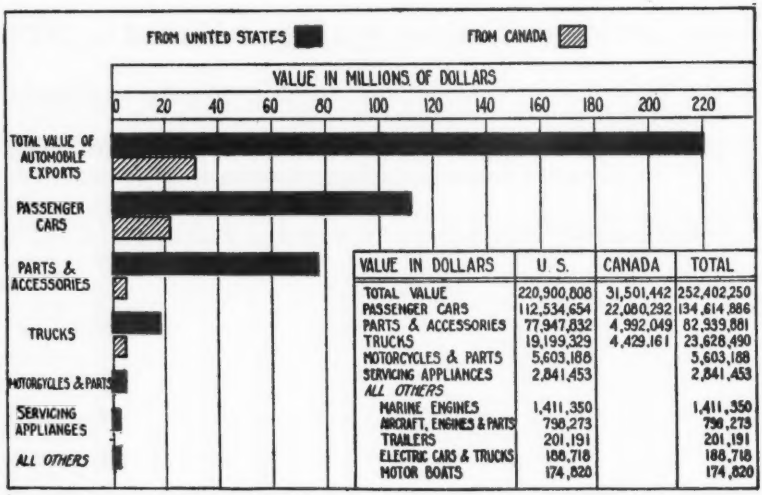
When the world consumption of motor vehicles of U. S. design is divided into two parts, one U. S. consumption and the other foreign consumption or consumption outside of the U. S., then the demand for these vehicles outside of the U. S. was 12.3% during the year 1924.

"U. S. consumption" is arrived at by subtracting U. S. exports from U. S. production. The classification "foreign consumption" is computed by aggregating U. S. and Canadian exports, foreign assemblies and Canadian domestic consumption. Canadian domestic consumption is estimated by subtracting Canadian exports from Canadian production.



Foreign countries including Canada purchased American motor cars equal in number to the retail sales in 21 states, as indicated above.

Canada Ships 12½% of American Automotive Exports



VALUE IN DOLLARS	U. S.	CANADA	TOTAL
TOTAL VALUE	220,900,808	31,501,442	252,402,250
PASSENGER CARS	112,534,654	22,080,232	134,614,886
PARTS & ACCESSORIES	77,947,832	4,992,049	82,939,881
TRUCKS	19,199,329	4,429,161	23,628,490
MOTORCYCLES & PARTS	5,603,188		5,603,188
SERVICING APPLIANCES	2,841,453		2,841,453
ALL OTHERS			
MARINE ENGINES	1,411,350		1,411,350
AIRCRAFT, ENGINES & PARTS	798,273		798,273
TRAILERS	201,191		201,191
ELECTRIC CARS & TRUCKS	188,718		188,718
MOTOR BOATS	174,820		174,820

Exports of Passenger Cars, Trucks, and Parts *from the United States* During the Calendar Years 1919-1924

	PASSENGER CARS		TRUCKS		PARTS
YEAR	Number	Value	Number	Value	Value
1919.....	67,145	73,700,527	15,585	35,425,437	42,562,186
1920.....	142,508	165,255,921	29,136	46,775,781	86,198,013
1921.....	30,950	32,533,725	7,480	10,335,893	39,058,729
1922.....	66,790	51,049,816	11,443	8,270,908	38,298,032
1923.....	127,035	90,692,272	24,861	15,318,058	58,974,907
1924.....	151,379	112,531,154	27,351	19,199,329	73,759,406

Exports of Passenger Cars and Trucks *from Canada* During the Calendar Years 1919-1924

	PASSENGER CARS		TRUCKS		PARTS
YEAR	Number	Value	Number	Value	Value
1919.....	19,597	11,580,260	3,352	$1,673,256	3,490,577
1920.....	18,070	13,576,179	4,942	3,059,056	5,276,027
1921.....	9,755	4,592,664	1,421	718,780	1,128,181
1922.....	35,394	21,059,574	2,564	1,094,519	1,926,098
1923.....	57,481	29,325,031	12,439	4,503,659	3,530,377
1924.....	43,874	22,081,439	12,772	4,429,161	4,992,059

U. S. Made 90% of World's Cars in 1924

(Figures from Automotive Division, Department of Commerce)

United States	3,503,000†
France	145,000
Canada	134,800
United Kingdom	80,000
Italy	35,000
Germany	18,000
Austria	6,000
Belgium	4,850
Czechoslovakia	2,000
Spain	900

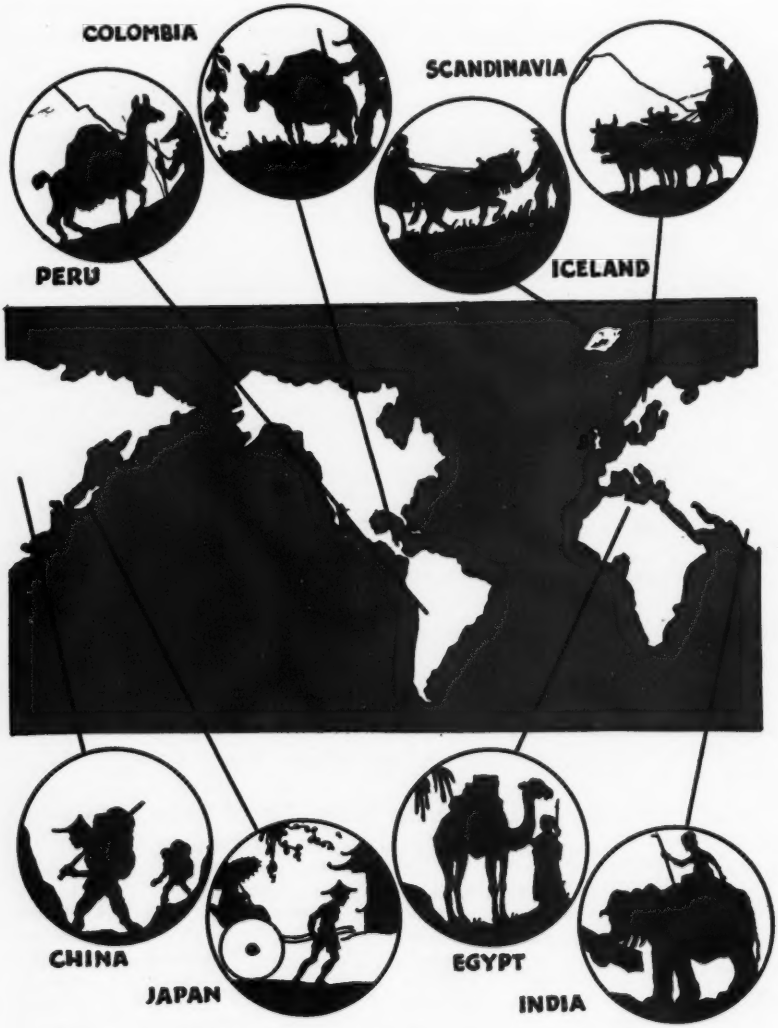
†Totals given elsewhere in this book include Canadian output, also some slight revisions which do not affect the percentage.

Motor Vehicle Exports by Calendar Years—United States and Canada

(Figures from Bureau of Foreign and Domestic Commerce)

	PASSENGER CARS		TRUCKS		
Year	Number	Value	Number	Value	Parts Value
1919	86,742	$85,280,787	18,937	$37,098,693	$77,467,263
1920	160,578	178,832,100	34,078	49,834,837	91,474,040
1921	40,705	37,126,389	8,901	11,054,673	40,186,910
1922	102,184	72,109,390	14,007	9,365,427	40,224,130
1923	184,516	120,017,303	37,291	19,821,717	62,405,284
1924	203,002	140,360,585	41,256	24,737,571	79,971,028

Motor Vehicles Replace Slow-Moving Transportation



More than 460,000 cars, trucks and buses were purchased by foreign countries in 1924. These are replacing the llama in Peru, the donkey in Colombia, the pony in Iceland, the ox in Scandinavia, the coolie in China, the jinrikisha in Japan, the camel in Egypt and the elephant in India.

Motor Vehicle Exports from U. S. Ports, 1924

(Figures for Calendar Year, from Bureau of Foreign and Domestic Commerce, U. S. Department of Commerce)

PASSENGER CARS

	Valued up to $500 inclusive Number	Valued over-$500 to $800 Number	Valued over-$800 to $2,000 Number	Valued over $2,000 Number	Total Number	Total Value
Austria	13	15	66	12	106	$126,549
Azores, etc	69	17	7	.....	93	44,391
Belgium	261	465	729	121	1576	1,665,840
Bulgaria	2	4	6	1	13	14,234
Czechoslovakia	16	5	27	.....	48	39,369
Denmark	99	249	340	28	716	692,528
Esthonia	.....	4	1	.....	5	4,171
Finland	113	148	117	3	381	275,877
France	66	29	205	49	349	441,126
Germany	229	369	1530	219	2347	2,723,991
Gibraltar	.....	4	1	1	6	7,159
Greece	107	191	157	18	473	425,302
Hungary	1	12	41	4	58	69,143
Iceland, etc. Is	1	.....	1	.....	2	1,555
Italy	2,509	29	29	33	2,600	874,673
Latvia	.....	3	24	3	30	35,451
Lithuania	.....	.....	1	.....	1	1,932
Malta, etc. Is	61	13	15	4	93	60,720
Netherlands	222	502	1,064	149	1,937	2,151,366
Norway	176	176	146	6	504	354,420
Poland and Danzig	1	29	80	4	114	123,431
Portugal	84	47	134	5	270	238,780
Rumania	91	47	86	16	240	209,219
Russia in Europe	160	.....	1	.....	161	62,850
Spain	1,821	1,178	1,800	181	4,980	4,244,382
Sweden	405	926	1,360	68	2,759	2,398,835
Switzerland	67	203	660	61	991	1,145,309
Turkey in Europe	15	2	24	.....	41	35,553
Ukraine	1	.....	.....	.....	1	450
England	975	2,558	2,045	201	5,779	5,214,812
Scotland	3	64	21	4	92	75,395
Ireland	21	158	67	1	247	192,918
Yugoslavia, etc	15	6	12	1	34	26,064
Canada	1,313	2,866	4,362	424	8,965	8,448,508
British Honduras	8	5	3	1	17	11,214
Costa Rica	62	36	50	.....	148	106,567
Guatemala	17	94	215	.....	326	337,821
Honduras	31	16	13	.....	60	33,227
Nicaragua	17	30	33	1	81	68,204
Panama	133	98	213	5	449	397,911
Salvador	43	67	215	13	338	356,491
Mexico	5,603	1,261	1,682	143	8,689	4,939,963
Miquelon, etc. Is	3	1	.....	.....	4	1,469
Newfoundland & Labr.	49	15	39	2	105	80,644
Barbados	60	13	29	.....	102	67,958
Jamaica	136	157	144	3	440	325,023
Trinidad and Tobago	148	41	15	1	205	106,383
Other British W. Indies	86	14	21	2	123	72,323
Cuba	5,741	1,028	893	252	7,914	4,195,603
Dom. Republic	467	96	135	25	723	459,335
Dutch West Indies	50	19	25	1	95	65,325
French West Indies	5	1	3	.....	9	5,837
Haiti	74	72	71	2	219	165,344
Virgin Island of U. S	15	3	5	.....	23	13,341
Argentina	5,462	2,887	3,603	267	12,219	9,285,633
Bolivia	11	22	57	7	97	116,367
Brazil	1,984	1,349	1,885	171	5,389	4,099,485
Chile	1,446	165	395	89	2,095	1,197,322

(Continued on following page)

Exports from U. S. Ports, 1924—Passenger Cars—(*Continued*)

Countries	Valued up to $500 inclusive Number	Valued over $500 to $800 Number	Valued over $800 to $2,000 Number	Valued over $2,000 Number	Total Number	Total Value
Colombia	263	123	276	18	680	582,640
Ecuador	89	28	87	2	206	166,425
British Guiana	27	29	6	.....	62	37,326
Dutch Guiana	4	.....	3	.....	7	4,884
French Guiana	2	.....	.....	.....	2	728
Paraguay	27	.....	2	.....	29	12,263
Peru	631	426	489	30	1,576	1,227,067
Uruguay	2,895	787	607	33	4,322	2,180,864
Venezuela	716	252	309	47	1,324	943,262
Aden	.....	.....	5	.....	5	6,400
British India	723	1,022	503	13	2,261	1,653,999
Ceylon	107	127	140	3	377	300,483
Straits Settlements	221	195	218	.....	634	483,055
O. British East India	2	5	2	.....	9	6,617
China	312	416	306	11	1,045	814,757
Chosen	152	11	2	.....	165	60,278
Java and Madura	104	504	449	2	1,059	902,232
Other Dutch East India	7	120	85	.....	212	176,714
French Indo-China	10	.....	.....	.....	10	11,928
Hejaz, Arabia, etc	287	6	21	.....	314	118,013
Hongkong	59	25	106	13	203	203,718
Japan	2,289	618	1,148	92	4,147	2,761,568
Kwangtung, l. t.	31	25	10	.....	66	45,350
Palestine and Syria	599	181	204	3	987	579,890
Persia	94	.....	2	.....	96	51,499
Philippine Islands	970	585	641	59	2,255	1,704,598
Russia in Asia	.....	.....	4	4	8	17,915
Siam	18	31	10	.....	59	41,206
Turkey in Aisa	10	.....	2	.....	12	5,524
Other Asia	4	.....	.....	.....	4	321,344
Australia	15,134	13,900	10,079	451	39,564	26,712,385
British Oceania	12	16	12	.....	40	28,279
French Oceania	26	17	7	1	51	68,793
New Zealand	688	1,440	1,819	118	4,065	3,642,165
Other Oceania	4	4	3	.....	11	7,917
Belgian Kongo	57	.....	.....	.....	57	22,328
British West Africa	24	52	36	.....	112	128,795
British South Africa	1,018	3,201	3,369	34	7,622	6,400,696
British East Africa	290	116	173	4	583	404,513
Canary Islands	47	52	124	1	224	198,177
Egypt	158	111	38	2	309	195,366
Algeria and Tunis	28	1	.....	.....	29	19,030
O. French Africa	131	23	2	.....	156	53,387
Italian Africa	6	.....	.....	.....	6	2,310
Liberia	4	.....	1	.....	5	3,181
Morocco	198	30	3	.....	231	99,371
Portu. East Africa	44	79	41	.....	164	115,515
Other Portu. Africa	62	22	5	.....	89	47,741
Spanish Africa	22	17	3	.....	42	23,565
Total	**59,174**	**42,406**	**46,256**	**3,543**	**151,379**	**$112,531,154**
GRAND TOTAL—PASSENGER CARS					**151,379**	**$112,351,154**

MOTOR TRUCKS

Countries	Up to 1 ton, inclusive Number	Over 1 to 2½ tons Number	Over 2½ tons	Commercial Motor Cars except Electric	Total No.	Total Value
Azores, etc. Is	4	.....	.....	.....	4	$2,337
Belgium	23	2	1	2	28	27,241
Denmark	6	24	5	.....	35	49,491
Finland	31	3	.....	18	52	28,828
France	6	.....	.....	.....	6	2,642
Germany	9	30	2	6	47	52,935
Gibraltar	.....	1	.....	.....	1	1,111
Greece	18	11	.....	3	32	24,915
Italy	964	.....	.....	1,549	2,513	638,002
Malta, etc., Is	.....	.....	.....	1	1	505

(*Continued on following page*)

Exports from U. S. Ports, 1924—Motor Trucks—(*Continued*)

Countries	Up to 1 ton, inclusive Number	Over 1 to 2½ tons Number	Over 2½ tons	Commercial Motor Cars except Electric	Total No.	Total Value
Netherlands	15	28	.....	11	54	52,846
Norway	7	15	3	2	27	34,865
Poland and Danzig	1	1	.....	.....	2	2,284
Portugal	6	1	.....	.....	7	2,033
Rumania	8	.....	.....	.....	8	4,000
Russia in Europe	2	50	.....	75	127	49,869
Spain	310	77	.....	251	638	269,482
Sweden	672	68	.....	658	1,398	518,995
Switzerland	9	.....	.....	1	10	5,119
Ukraine	1	.....	.....	.....	1	500
England	68	294	8	303	673	562,960
Scotland	2	9	.....	4	15	14,463
Ireland	1	14	.....	.....	15	10,673
Canada	296	860	109	163	1,428	1,871,455
British Honduras	2	2	.....	.....	4	8,404
Costa Rica	9	4	.....	1	14	10,817
Guatemala	10	18	1	6	35	34,937
Honduras	26	1	4	3	34	26,446
Nicaragua	2	1	1	.....	4	8,172
Panama	73	34	2	21	130	87,305
Salvador	2	5	8	.....	15	47,610
Mexico	993	213	22	165	1,393	828,542
Miquelon, etc. Is	4	.....	.....	.....	4	600
Newfoundland & Labr	4	2	.....	1	7	3,436
Bermuda	.....	1	1	.....	2	7,300
Barbados	32	1	.....	7	40	16,122
Jamaica	93	27	4	24	148	95,756
Trinidad and Tobago	33	13	3	13	62	55,078
Other Brit. W. Ind	24	2	.....	8	34	28,174
Cuba	1,304	73	30	71	1,478	553,765
Dom. Republic	94	12	11	15	132	98,694
Dutch West Indies	33	.....	.....	9	42	15,875
French West Indies	7	.....	.....	.....	7	2,486
Haiti	33	11	2	2	48	39,545
Argentina	161	177	186	84	608	982,255
Bolivia	19	3	4	.....	26	34,894
Brazil	976	24	6	667	1,673	490,804
Chile	528	162	37	545	1,272	753,746
Colombia	128	66	23	35	252	266,547
Ecuador	87	6	1	27	121	56,768
British Guiana	.....	3	1	2	6	6,166
French Guiana	6	.....	.....	.....	6	2,276
Paraguay	6	.....	.....	5	11	3,660
Peru	636	327	20	133	1,116	815,718
Uruguay	568	24	15	640	1,247	400,333
Venezuela	290	66	19	64	439	358,760
Aden	.....	1	.....	2	3	4,400
British India	50	99	2	172	323	292,481
Ceylon	81	144	4	27	256	306,420
Straits Settlements	3	2	1	.....	6	7,980
China	204	34	.....	32	270	139,393
Chosen	15	.....	.....	.....	15	4,840
Java and Madura	2	16	2	.....	20	20,244
Other D. East Indies	2	13	.....	.....	15	16,338
French Indo-China	5	.....	.....	.....	5	1,780
Hongkong	41	7	2	51	101	58,515
Japan	2,014	164	127	748	3,053	1,769,244
Palestine and Syria	4	.....	.....	23	27	11,822
Philippine Islands	579	68	5	65	717	367,587
Turkey in Asia	10	.....	.....	.....	10	2,960
Australia	912	1,132	705	209	2,958	3,788,737
British Oceania	6	3	.....	2	11	9,950
French Oceania	3	1	1	4	9	8,336
New Zealand	188	271	105	11	575	891,434
Belgian Kongo	33	.....	.....	30	63	21,880
British West Africa	117	354	.....	105	576	586,760

(*Continued on following page*)

Exports from U. S. Ports, 1924—Motor Trucks—(*Continued*)

Countries	Up to 1 ton, inclusive Number	Over 1 to 2½ tons Number	Over 2½ tons	Commercial Motor Cars except Electric	Total No.	Total Value
British South Africa	71	89	6	60	226	$241,335
British East Africa	28	2	2	1	33	29,826
Canary Islands	9	15	.....	6	30	24,359
Egypt	13	1	.....	2	16	9,258
Algeria and Tunis	4	.....	.....	3	7	2,856
Other French Africa	140	14	.....	23	177	70,158
Liberia	4	.....	.....	.....	4	1,594
Morocco	38	2	.....	2	42	18,380
Portu. E. Africa	11	1	.....	8	20	14,265
Other Portu. Africa	160	8	.....	37	205	84,328
Spanish Africa	6	.....	.....	.....	6	2,400
Kwangtung, l.t.	35	2	.....	.....	37	19,657
Other Oceania	3	.....	.....	.....	3	1,270
TOTAL	13,433	5,209	1,491	7,218	27,351	$19,199,329
GRAND TOTAL—MOTOR TRUCKS					27,351	$112,531,154

Shipments to Non-Contiguous Territories, Calendar Year 1924

(*Figures from Bureau of Foreign and Domestic Commerce*)

	ALASKA		HAWAII		PORTO RICO	
	Number	Dollars	Number	Dollars	Number	Dollars
Motor trucks and buses	38	$31,745	437	$586,331	634	$491,005
Passenger cars	309	303,027	4,656	3,233,068	2,775	2,208,397
Auto unit assemblies	.....	5,968	.....	.....	.....	47
Parts and accessories	.....	67,527	.....	716,593	.....	435,453

Leading Customers for United States and Canadian Exports

UNITED STATES

Passenger Cars

Country	Number	Value
Australia	39,564	$26,712,385
Argentina	12,219	9,285,633
Canada	8,965	8,448,508
Mexico	8,689	4,939,963
Cuba	7,914	4,195,603
British S. Africa	7,622	6,400,696
United Kingdom & Irish Free State	6,118	5,483,125

Trucks

Country	Number	Value
Japan	3,053	1,769,244
Australia	2,958	3,788,737
Italy	2,513	638,002
Brazil	1,673	490,804
Cuba	1,478	553,765
Canada	1,428	1,871,455
Sweden	1,398	518,995

Country	Parts and Accessories	Value
Canada		$17,504,547
Denmark		8,401,044
Belgium		7,635,152
Argentina		7,574,305
Brazil		5,614,218
United Kingdom and Irish Free State		4,979,201

CANADA—Passenger Cars

Country	Number	Value
Australia	10,265	$3,280,351
New Zealand	9,511	5,122,154
United Kingdom	5,701	3,890,195
British India	4,896	2,047,958
British S. Africa	2,702	1,482,100
Argentina	1,919	1,390,435

Trucks

Country	Number	Value
Australia	5,837	$1,973,905
New Zealand	1,881	664,471
British India	1,586	579,170
United Kingdom	1,264	415,621
Ceylon	411	150,190
British E. Africa	410	145,805
Dutch East Indies	326	107,931

Country	Parts and Accessories	Value
British South Africa		$1,410,061
Australia		703,465
United Kingdom		543,236
Argentina		422,264
New Zealand		368,719
Brazil		309,216

The foreign demand for American motor vehicles consumed in 1924, the production of U. S. and Canadian factories for 6½ weeks.

Total Motor Vehicle Registrations by States—1919-1924

(Figures from U. S. Bureau of Public Roads)

STATE	1919	1920	1921	1922	1923	1924
Alabama	58,898	74,637	82,366	90,052	126,642	157,262
Arizona	28,979	34,601	35,611	38,034	49,175	57,828
Arkansas	49,450	59,082	67,408	84,596	113,300	141,983
California	477,450	583,623	680,614	861,807	1,100,283	1,319,394
Colorado	104,865	129,255	145,739	162,328	188,956	213,247
Connecticut	102,410	119,134	134,141	152,977	181,748	217,227
Delaware	16,152	18,300	21,413	24,560	29,977	35,136
District of Columbia	35,400	34,161	40,625	52,792	74,811	88,762
Florida	55,400	73,914	97,957	116,170	151,990	195,128
Georgia	137,000	146,000	131,976	143,423	173,889	207,688
Idaho	42,220	50,861	51,294	53,874	62,379	69,227
Illinois	478,438	568,924	663,348	781,974	969,331	1,119,236
Indiana	227,255	333,067	400,342	469,939	583,342	651,705
Iowa	364,043	437,378	461,084	500,158	571,061	616,128
Kansas	228,600	294,159	289,539	327,194	375,594	410,891
Kentucky	90,008	112,683	126,802	154,021	198,377	229,804
Louisiana	51,000	73,000	77,885	102,284	136,622	178,000
Maine	53,425	62,907	77,527	92,539	108,609	127,178
Maryland[1]	95,634	102,841	136,249	165,624	169,351	198,398
Massachusetts	247,182	274,498	360,732	385,231	481,150	570,578
Michigan	325,813	412,717	476,452	578,210	730,658	867,545
Minnesota	259,741	324,166	323,475	380,557	448,187	503,437
Mississippi	59,000	68,486	65,039	77,571	104,286	134,680
Missouri	244,363	297,008	346,437	392,523	476,598	540,500
Montana	59,324	60,650	58,785	62,650	73,828	79,695
Nebraska	200,000	219,000	238,704	256,654	286,053	308,715
Nevada	9,305	10,464	10,821	12,116	15,699	18,118
New Hampshire	31,625	34,680	42,039	48,406	59,604	70,932
New Jersey	190,873	227,737	272,994	342,286	430,958	504,217
New Mexico	18,082	22,100	22,559	25,473	32,032	41,680
New York	566,511	676,205	812,031	1,002,293	1,204,213	1,412,879
North Carolina	109,017	140,860	148,627	182,550	246,812	302,232
North Dakota	82,885	90,840	92,644	99,052	109,266	117,346
Ohio	511,031	621,390	720,634	858,716	1,069,100	1,241,600
Oklahoma	144,500	212,880	221,300	249,659	307,000	369,903
Oregon	83,332	103,790	118,198	134,125	165,962	192,615
Pennsylvania	482,117	570,164	689,589	829,737	1,043,770	1,228,587
Rhode Island	44,833	50,477	54,608	66,083	76,312	95,482
South Carolina	70,143	93,843	89,836	95,239	127,467	161,753
South Dakota	104,628	120,395	119,274	125,241	131,700	142,396
Tennessee	80,422	101,852	117,025	135,716	173,365	204,680
Texas	331,310	427,693	467,616	526,238	688,233	801,712
Utah	35,236	42,616	47,485	49,164	59,525	68,316
Vermont	26,807	31,625	37,265	43,881	52,776	61,179
Virginia	94,100	115,470	139,200	168,000	218,896	261,945
Washington	148,775	173,920	185,359	210,716	258,264	295,443
West Virginia	50,203	80,664	93,940	112,763	157,924	190,734
Wisconsin	236,290	293,298	341,841	382,542	457,271	525,221
Wyoming	21,371	23,926	26,866	30,637	39,831	43,639
Totals	**7,565,446**	**9,231,941**	**10,463,295**	**12,238,375**	**15,092,177**	**17,591,981**

[1] Maryland registrations prior to 1923 include non-resident registrations.

Passenger Car
Registrations by States—1920-1924

STATE	1920	1921	1922	1923	1924
Alabama	61,941	73,256	80,183	112,797	138,574
Arizona	29,868	31,631	33,774*	42,610	50,233
Arkansas	52,412*	60,148*	76,696	102,000	125,368
California	548,723*	645,522	822,394	1,056,756	1,125,381
Colorado	121,506	136,336	151,499	175,669	197,361
Connecticut	95,123	110,029	127,055	152,608	183,451
Delaware	16,270*	19,113*	21,810*	24,709	29,075
District of Columbia	29,131	35,448	46,069	67,624	78,846
Florida	63,466	83,111	96,942	128,460	161,936
Georgia	134,000	117,762	126,498	151,420	181,413
Idaho	46,541*	46,935	49,393	57,200	61,600
Illinois	504,250	583,441	682,250	847,005	978,428
Indiana	300,226	357,025	413,410	510,114	566,736
Iowa	407,578	430,118	468,736	534,796	575,210
Kansas	272,389*	267,891	303,725	349,038	370,951
Kentucky	99,437	111,777	136,627	177,834	206,529
Louisiana	66,000	67,311	87,003	116,003	150,900
Maine	55,395	67,591	78,697	92,995	108,177
Maryland	87,625	124,652	153,748	157,742	187,215
Massachusetts	223,112	305,471	325,307	407,645	486,952
Michigan	366,946	426,687	518,127	658,658	784,070
Minnesota	300,166*	299,100	341,322	399,404	465,614
Mississippi	63,721	60,489*	71,000	93,846	122,117
Missouri	267,300*	311,787*	352,929	430,340	489,356
Montana	59,450	56,434*	55,682	65,449	69,824
Nebraska	200,000	219,781	233,658	259,382	277,449
Nevada	9,639*	10,000	10,759*	13,699	16,236
New Hampshire	30,240	36,994	42,270	52,608	63,662
New Jersey	204,125	248,477	267,777	341,853	404,929
New Mexico	20,664	21,155	23,820*	29,032	39,890
New York	527,332	663,478	816,435	1,000,367	1,176,867
North Carolina	127,405	134,884	163,600	225,488	274,752
North Dakota	88,475*	90,221	96,080	105,979	112,664
Ohio	538,090	622,044	740,884	927,200	1,076,800
Oklahoma	204,300	197,465*	221,697*	288,424	342,856
Oregon	91,336*	103,838	118,627	152,975	177,558
Pennsylvania	521,835	632,541	763,916	969,361	1,050,465
Rhode Island	40,914	44,915	53,307	62,382	78,235
South Carolina	86,711*	82,993	88,018	115,892	146,639
South Dakota	112,589	110,997	116,144	121,164	131,190
Tennessee	90,214	102,795	119,319	154,181	183,891
Texas	379,364*	417,231*	467,299*	628,233*	738,958
Utah	37,060	40,562	41,942	51,625	59,453
Vermont	28,709	33,778	41,241	49,420	57,072
Virginia	101,800	122,000	145,000	187,977	220,302
Washington	144,131	157,620	178,775	221,164	253,888
West Virginia	69,862	77,397	107,653	150,468	168,563
Wisconsin	277,093	320,577	356,143	422,718	475,182
Wyoming	21,387	23,966	27,410	35,294	38,831
Totals	**8,225,859**	**9,346,195**	**10,864,128**	**13,479,608**	**15,460,649**

*Estimated.

Motor Truck
Registrations by States—1920-1924

STATES	1920	1921	1922	1923	1924
Alabama	12,696	9,110	9,869	13,845	18,688
Arizona	4,733	3,980	4,260*	6,565	7,595
Arkansas	6,670*	7,260*	7,900	11,300	16,615
California	34,900*	35,092	39,413	43,527	194,013†
Colorado	7,749	9,403	10,829	13,287	15,886
Connecticut	24,011	24,112	25,922	29,140	33,776
Delaware	2,030*	2,300*	2,750*	5,268	6,061
District of Columbia	5,030	5,177	6,723	7,187	9,916
Florida	10,448	14,846	19,228	23,530	34,192
Georgia	12,000	14,214*	16,925	22,469	26,275
Idaho	4,320*	4,359	4,481	5,179	7,627
Illinois	64,674	79,907	99,724	122,326	140,808
Indiana	32,841	43,317	56,529	73,228	84,969
Iowa	29,800	30,966	31,422	36,265	40,918
Kansas	21,770*	21,648	23,469	26,556	39,940
Kentucky	13,246	15,025	17,394	20,543	23,275
Louisiana	7,000	10,574	15,281	20,619	27,100
Maine	7,512	9,936	13,842	15,614	19,001
Maryland	15,216	11,597	11,876	11,609	11,183
Massachusetts	51,386	55,261	59,924	73,505	83,626
Michigan	45,771	49,765	60,083	72,000	83,475
Minnesota	24,000*	24,375	39,235	48,783	37,823
Mississippi	4,765	4,550*	6,571	10,440	12,563
Missouri	29,700*	34,650*	39,594	46,258	51,144
Montana	1,200	2,351*	6,968	8,379	9,871
Nebraska	19,000	18,923	22,996	26,671	31,266
Nevada	825*	821	1,357*	2,000	1,882
New Hampshire	4,440	5,045	6,136	6,996	7,270
New Jersey	23,612	24,517	74,509	89,105	99,288
New Mexico	1,436*	1,404	1,653*	3,000	1,790
New York	148,873	148,553	185,858	203,846	236,012
North Carolina	13,455	13,743	18,950	21,324	27,480
North Dakota	2,365*	2,423	2,972	3,287	4,682
Ohio	83,300	98,590	117,832	141,900	164,800
Oklahoma	8,580	23,834*	27,962*	18,576	27,047
Oregon	12,454*	14,360	15,498	12,987	15,057
Pennsylvania	48,329	57,048	65,821	74,409	178,122†
Rhode Island	9,563	9,693	12,776	13,930	17,247
South Carolina	7,132*	6,843	7,221	11,575	15,114
South Dakota	7,806	8,277	9,097	10,536	11,206
Tennessee	11,638	14,230	16,397	19,184	20,789
Texas	48,329*	50,385*	58,939*	60,000*	62,754
Utah	5,556	6,923	7,222	7,900	8,863
Vermont	2,916	3,487	2,640	3,356	4,107
Virginia	13,670	17,200	23,000	30,919	41,643
Washington	29,789	27,739	31,941	37,100	41,555
West Virginia	10,802	16,543	5,110	7,456	22,171
Wisconsin	16,205	21,264	26,399	34,556	50,039
Wyoming	2,539	2,900	3,227	4,537	4,808
Totals	**1,006,082**	**1,118,520**	**1,375,725**	**1,612,569**	**2,131,332†**

*Estimated. †Big increase due largely to reclassification of trucks which previously had been classed as passenger cars.

17,591,981 Motor Vehicles

15,460,649 Motor Cars

One Motor Car to Every 7 Persons

Numerical Registration Increase—2,500,000

New York Has Most Cars and Trucks—1,412,000

NET MOTOR VEHICLE REGISTRATIONS, AND

(*Figures from Bureau of Public Roads,*

INDIVIDUALLY AND COMMERCIALLY OWNED

STATES	Grand Total Motor Vehicles*[1]	Passenger Cars[1]	Motor Trucks[1]	Taxis, Busses, and Cars For Hire	Official Cars and Trucks Owned by State, etc.[1]	Motor Cycles
Alabama	157,262	135,777	18,688	2,797	[3]	549
Arizona	57,828	50,233	7,595	[3]	903	372
Arkansas	141,983	125,368	16,615	[3]	458	295
California	1,319,394	1,125,381	[4]194,013	[4]	[3]	12,325
Colorado	213,247	197,361	15,886	[5]	[3]	2,226
Connecticut	217,227	180,542	33,776	2,909	1,110	4,211
Delaware	35,136	29,075	6,061	[3]	[3]	325
District of Columbia	88,762	78,846	9,916	[5]	1,351	1,889
Florida	195,128	157,519	34,192	3,417	[3]	733
Georgia	207,688	181,268	26,275	145	[3]	750
Idaho	69,227	61,600	7,627	[3]	930	619
Illinois	1,119,236	978,428	140,808	[3]	[3]	6,873
Indiana	651,705	566,736	84,969	[3]	[3]	4,822
Iowa	616,128	575,210	40,918	[5]	2,400	2,597
Kansas	410,891	370,951	39,940	[3]	1,947	1,632
Kentucky	229,804	206,064	23,275	[6]465	1,044	724
Louisiana	[7]178,000	[7]150,900	[7]27,100	[4]	1,000	510
Maine	127,178	105,040	19,001	3,137	854	1,288
Maryland	198,398	184,398	11,183	2,817	[3]	3,462
Massachusetts	[5]570,578	[4]486,952	[4]83,626	[4]	[8]900	10,778
Michigan	867,545	784,070	83,475	[3]	[3]	3,644
Minnesota	503,437	465,165	37,823	449	2,171	3,080
Mississippi	134,680	122,117	12,563	[4]	[3]	96
Missouri	540,500	489,356	51,144	[5]	1,203	2,139
Montana	79,695	69,824	9,871	[3]	979	293
Nebraska	308,715	277,449	31,266	[3]	[3]	1,342
Nevada	18,118	16,236	1,882	[4]	336	111
New Hampshire	70,932	63,662	7,270	[3]	[3]	1,750
New Jersey	504,217	393,785	99,288	11,144	[7]4,200	8,053
New Mexico	41,680	39,890	1,790	[3]	[3]	228

*—Does not include motor cycles and official cars and trucks.
1—Net number of cars and trucks shown when possible, excluding re-registrations and non-resident registrations. Federal, State, or other Government owned cars and trucks, not registered and not paying licenses, are also excluded in grand totals, unless noted.
2—Recorded in private cars and trucks.
3—Not separately recorded.
4—"Motor Trucks" includes solid and pneumatic types, also taxis, busses, etc.
5—Included with private passenger cars.

(*Continued on*

Registered in U. S. in 1924

2,131,332 Motor Trucks

Percentage Registration Increase—17%
Louisiana Has Largest % Gain—30%
California Leads in Numerical Increase—219,000

GROSS RECEIPTS, ETC.—REGISTRATION YEAR 1924

U. S. Department of Agriculture)

REGISTRATION FEES, LICENSES, PERMITS, ETC.		AMOUNT OF REGISTRATION FEES PAID FOR BY			
Total Gross Receipts	Amount Applicable to Highway Work by or Under Supervision of State Highway Department	Passenger Cars	Motor Trucks	Per Cent Increase in Registration during 1924	STATES
$1,954,801	$1,581,047	$.....	$.....	24.2	.....Alabama
339,722	339,722	.....	.....	17.6	.....Arizona
2,333,240	1,833,240	1,980,814	262,317	25.3	.....Arkansas
7,011,113	3,079,659	3,594,636	2,440,377	19.9	.....California
1,258,205	574,568	992,333	180,222	12.9	.....Colorado
5,069,581	5,069,581	2,766,530	1,047,278	19.5	.....Connecticut
604,354	604,354	334,250	122,874	17.2	.....Delaware
378,868	.....	.....	.....	18.6	..District of Columbia
2,418,933	1,576,118	.....	.....	28.4	.....Florida
2,532,266	2,446,215	2,067,280	408,823	19.4	.....Georgia
1,306,892	326,723	1,083,700	195,727	11.0	.....Idaho
11,546,206	11,546,206	.....	.....	15.5	.....Illinois
4,102,666	3,906,858	3,030,023	826,008	11.7	.....Indiana
8,979,170	[3]8,171,045	.....	.....	7.9	.....Iowa
[4]4,222,930	[4]4,036,937	.....	.....	9.4	.....Kansas
3,233,379	3,108,732	.....	.....	15.8	.....Kentucky
2,790,348	2,790,348	[1]1,922,716	[2]813,000	30.3	.....Louisiana
1,933,561	1,839,269	.....	.....	17.1	.....Maine
2,332,953	1,633,067	1,399,020	247,295	17.2	.....Maryland
8,122,166	[7]7,400,000	5,119,148	1,233,626	18.8	.....Massachusetts
12,404,546	5,638,050	9,730,255	1,408,579	18.7	.....Michigan
8,591,853	8,591,853	7,387,698	886,036	12.3	.....Minnesota
1,525,077	589,844	.....	.....	29.1	.....Mississippi
4,525,914	4,238,914	.....	.....	13.4	.....Missour
776,320	.....	638,534	107,310	7.9	.....Montana
3,597,261	[2]2,697,946	2,922,756	564,702	7.9	.....Nebraska
181,970	172,000	142,528	34,168	15.4	.....Nevada
1,522,186	1,411,794	.....	.....	19.0	.....New Hampshire
9,278,428	8,213,182	3,673,989	2,701,805	17.0	.....New Jersey
421,412	400,342	.....	.....	30.1	.....New Mexico

[4]—Re-registrations included, but non-resident excluded.
[1]—Approximate.
[3]—City cabs excluded.
[2]—State owned cars only.

two following pages)

Motor Vehicle Registrations,

(Continued from

INDIVIDUALLY AND COMMERCIALLY OWNED

STATES	Grand Total Motor Vehicles*[1]	Passenger Cars[1]	Motor Trucks[1]	Taxis, Buses, and Cars For Hire	Official Cars and Trucks Owned by State, etc.[1]	Motor Cycles
New York	1,412,879	1,136,678	236,012	40,189	8,910	19,837
North Carolina	302,232	272,552	27,480	2,200	[2]	1,029
North Dakota	117,346	112,664	4,682	[2]	[2][17]	509
Ohio	1,241,600	1,076,800	164,800	[2]	5,400	15,000
Oklahoma	369,903	342,856	27,047	[2]	[2]	733
Oregon	192,615	177,558	15,057	[2]	[2]	2,764
Pennsylvania	1,228,587	1,043,692	178,122	6,773	[2]	17,540
Rhode Island	95,482	76,666	17,247	1,569	[2]	1,428
South Carolina	161,753	146,639	15,114	[2]	1,067	477
South Dakota	142,396	131,190	11,206	[2]	[2]	305
Tennessee	204,680	183,891	20,789	[2]	[2]	682
Texas	801,712	735,270	62,754	3,688	[2]	2,634
Utah	68,316	59,453	8,863	[2]	500	731
Vermont	[18]61,179	[18]57,072	[18]4,107	[2]	123	779
Virginia	261,945	220,000	41,643	302	[2]	3,000
Washington	295,443	251,466	41,555	2,422	3,701	3,164
West Virginia	190,734	163,907	22,171	4,656	[2]	1,407
Wisconsin	525,221	475,182	50,039	[2]	3,005	3,938
Wyoming	43,639	38,831	4,808	[2]	177	252
Totals	**17,591,981**	**15,371,570**	**2,131,332**	**89,079**	**44,986**	**153,925**

*—Does not include motor cycles and official cars and trucks.

[1]—Net number of cars and trucks shown when possible, excluding re-registrations and non-resident registrations. Federal, State, or other Government owned cars and trucks, not registered and not paying licenses, are also excluded in grand totals, unless noted.

[2]—Not separately recorded.

[17]—Stateownedcarsonly. [18]—Includes non-resident registrations.

States Rated According to Percentage of Increase

	Per Cent		Per Cent		Per Cent
Louisiana	30.3	Michigan	18.7	Wisconsin	14.9
New Mexico	30.1	Dist. of Columbia	18.6	Utah	14.8
Mississippi	29.1	Tennessee	18.1	Washington	14.4
Florida	28.4	Pennsylvania	17.7	Missouri	13.4
South Carolina	26.9	Arizona	17.6	Colorado	12.9
Arkansas	25.3	New York	17.3	Minnesota	12.3
Rhode Island	25.1	Delaware	17.2	Indiana	11.7
Alabama	24.2	Maryland	17.2	Idaho	11.0
North Carolina	22.5	Maine	17.1	Wyoming	9.6
West Virginia	20.8	New Jersey	17.0	Kansas	9.4
Oklahoma	20.5	Texas	16.5	South Dakota	8.1
California	19.9	Ohio	16.1	Montana	7.9
Virginia	19.7	Oregon	16.1	Nebraska	7.9
Connecticut	19.5	Vermont	15.9	Iowa	7.9
Georgia	19.4	Kentucky	15.8	North Dakota	7.4
New Hampshire	19.0	Illinois	15.5		
Massachusetts	18.8	Nevada	15.4	**Total**	**16.6**

States Rated According to

California	219,111	Indiana	68,363	Louisiana	41,378
New York	208,666	Wisconsin	67,950	Washington	37,179
Pennsylvania	184,817	Missouri	63,902	Connecticut	35,479
Ohio	172,500	Oklahoma	62,903	Kansas	35,297
Illinois	149,905	N. Carolina	55,420	S. Carolina	34,286
Michigan	136,887	Minnesota	55,250	Georgia	33,799
Texas	113,479	Iowa	45,067	W. Virginia	32,810
Massachusetts	89,428	Florida	43,138	Kentucky	31,427
New Jersey	73,259	Virginia	43,049	Tennessee	31,315

Licenses and Revenues, 1924

two preceding pages)

REGISTRATION FEES, LICENSES, PERMITS, ETC.		AMOUNT OF REGISTRATION FEES PAID FOR BY			
Total Gross Receipts	Amount Applicable to Highway Work by or Under Supervision of State Highway Department	Passenger Cars	Motor Trucks	Per Cent Increase in Registration during 1924	STATES
24,089,241	18,066,930	14,001,939	6,235,099	17.3	New York
4,614,521	4,153,069	.....	.....	22.5	North Carolina
816,766	[11]773,691	.....	.....	7.4	North Dakota
11,685,329	5,842,664	.....	.....	16.1	Ohio
3,728,679	[13]3,323,609	.....	.....	20.5	Oklahoma
4,766,070	3,424,552	3,925,444	688,712	16.1	Oregon
22,107,376	22,107,376	10,236,151	4,870,202	17.7	Pennsylvania
1,623,604	[7]1,523,604	935,586	370,886	25.1	Rhode Island
1,151,983	921,586	933,463	192,154	26.9	South Carolina
2,068,437	1,445,920	.....	.....	8.1	South Dakota
2,597,870	2,597,870	2,021,931	534,079	18.1	Tennessee
10,373,997	7,225,991	.....	.....	16.5	Texas
485,969	427,509	379,972	87,992	14.8	Utah
1,323,377	1,252,101	1,008,165	101,452	15.9	Vermont
3,791,556	3,791,556	.....	.....	19.7	Virginia
4,861,420	4,416,053	3,260,688	950,127	14.4	Washington
2,874,587	2,332,712	1,949,982	449,016	20.8	West Virginia
6,786,485	[6]6,500,000	5,483,275	1,160,967	14.8	Wisconsin
448,664	448,664	346,365	90,622	9.6	Wyoming
$225,492,252	**$184,393,071**	**$93,269,171**	**$29,211,455**	**16.6**	**Totals**

[7]—Approximate.
[11]—Excludes cost of motor registration department.
[12]—To be expended by counties under general regulation made by State Highway Department.
[13]—Includes non-resident registrations.

States Rated According to Gross Registration

New York	1,412,879	N. Carolina	302,232	Arkansas	141,983
California	1,319,394	Washington	295,443	Mississippi	134,680
Ohio	1,241,600	Virginia	261,945	Maine	127,178
Pennsylvania	1,228,587	Kentucky	229,804	N. Dakota	117,346
Illinois	1,119,236	Connecticut	217,227	Rhode Island	95,482
Michigan	867,545	Colorado	213,247	D. of C	88,762
Texas	801,712	Georgia	207,688	Montana	79,695
Indiana	651,705	Tennessee	204,680	N. Hampshire	70,932
Iowa	616,128	Maryland	198,398	Idaho	69,227
Massachusetts	570,578	Florida	195,128	Utah	68,316
Missouri	540,500	Oregon	192,615	Vermont	61,179
Wisconsin	525,221	W. Virginia	190,734	Arizona	57,828
New Jersey	504,217	Louisiana	178,000	Wyoming	43,639
Minnesota	503,437	S. Carolina	161,753	New Mexico	41,680
Kansas	410,891	Alabama	157,262	Delaware	35,136
Oklahoma	369,903	S. Dakota	142,396	Nevada	18,118
Nebraska	308,715				

Numerical Increase in Registration

Alabama	30,620	Maine	18,569	N. Dakota	8,080
Mississippi	30,394	D. of C	13,951	Idaho	6,848
Maryland	29,047	N. Hampshire	11,328	Montana	5,867
Arkansas	28,683	S. Dakota	10,696	Delaware	5,169
Oregon	26,653	New Mexico	9,648	Wyoming	3,808
Colorado	24,291	Utah	8,791	Nevada	2,419
Nebraska	22,662	Arizona	8,653		
Rhode Island	19,170	Vermont	8,403	**Total**	**2,501,045**

City Registrations of Motor Vehicles

430,842 in New York—310,838 in Chicago 260,887 in Detroit — 191,580 in Cleveland

(Figures from Chamber of Commerce, and Automobile Dealer Associations)

53 CITIES HAVING MORE THAN 100,000 POPULATION

City	Motor Cars	Motor Trucks	Taxis or Jitneys	Buses	Total M. V.	Area Sq. Mi.	Population
Akron, Ohio	39,500	6,200	.....	.....	45,700	25	208,435
Atlanta, Ga.	.....	.....	.....	.....	35,000*	31	222,963
Baltimore, Md.	65,000	6,000	1,500	150	82,650	130	773,580
Birmingham, Ala.	24,866	4,056	398	44	29,364	52	195,901
Bridgeport, Conn.	13,651	2,755	256	.....	16,662	....	143,555
Chicago, Ill.	260,887	44,731	4,800	420	310,838	....	2,886,971
Cincinnati, O.	72,000	9,000	210	(28)	bus lines	72	406,387
Cleveland, O.	165,000	26,000	500	80	191,580	69	888,519
Columbus, O.	50,614§	7,175§	.....	.....	57,789	....	261,082
Dallas, Texas.	60,000	5,000	.....	.....	65,000	26	182,274
Dayton, O.	39,000	6,000	45	.....	45,045	17	165,530
Denver, Colo.	57,709	4,267	400	.....	62,376	59	272,031
Detroit, Mich.	237,267§	23,284§	.....	.....	260,551	....	995,668
Des Moines, Ia.	31,000	3,500	120	.....	34,620	63	140,923
Duluth, Minn.	10,500	2,500	100	75	13,175	....	106,289
Elizabeth, N. J.	12,000	4,000†	250	.....	16,250	....	103,947
Erie, Pa.	18,896‡	.....	21	10	18,927	20	112,571
Fall River, Mass.	7,000	2,000	51	6	9,057	42	120,912
Fort Worth, Tex.	32,236©	2,700	250	25	35,211	40	143,821
Hartford, Conn.	16,793	3,124	198	13	20,128	18	138,036
Indianapolis, Ind.	72,650	10,500	150	100	83,400	51	342,718
Jacksonville, Fla.	11,000	3,000	400	75	14,475	....	100,046
Jersey City, N. J.	9,000	3,400	20	400	12,820	19	309,034
Kansas City, Mo.	71,798§	9,483§	.....	.....	81,281	60	351,819
Louisville, Ky.	40,915©	7,394	627	12	48,948	39	257,671
Lynn, Mass.	.....	.....	.....	.....	10,000*	11½	102,683
Memphis, Tenn.	30,942	4,702	160	65	35,869	24	170,067
Milwaukee, Wis.	62,000	10,000	350	140	72,490	....	484,595
Minneapolis, Minn.	74,400	15,000	500	100	90,000	....	409,125
New Bedford, Mass.	10,149	2,338	30	10	12,527	19	130,072
New Orleans, La.	35,500	9,500	275	25	45,300	196	404,575
New York, N. Y.	318,243	88,137	23,235	1,227	430,842	....	5,927,625
Norfolk, Va.	17,133	1,950	100	50	19,233	29	158,089
Omaha, Nebr.	35,319§	5,677§	.....	.....	40,996	38	204,382
Paterson, N. J.	8,300	3,200	300†	.....	11,800	8	139,579
Portland, Ore.	58,000§	6,000	.....	125	64,125	66	273,621
Providence, R. I.	25,144	649	564	60	26,417	18	242,378
Reading, Pa.	16,500	1,500	60	6	18,066	.....	110,917
Richmond, Va.	20,023	2,308	214	52	22,597	26½	181,044
Rochester, N. Y.	62,296©	8,495	346	336	71,473	32	318,892
Salt Lake City, Utah	20,000	375	175	25	20,575	51	126,241
San Francisco, Cal.	84,665§	20,373§	.....	.....	105,038	42	539,038
Seattle, Wash.	57,848	8,794	.....	.....	(6,642	68	315,685
Spokane, Wash.	.....	.....	.....	.....	30,000©	....	104,573
Springfield, Mass.	19,837	3,440	.....	.....	23,277	....	144,227
Syracuse, N. Y.	53,500	7,900	500	10	61,910	8	184,511
Tacoma, Wash.	19,114	3,186	.....	.....	22,300	43½	101,731
Toledo, O.	50,000	10,000	300	150	60,450	34	269,338
Trenton, N. J.	12,000‡	.....	61	21	12,082	8½	119,289
Tulsa, Okla.	18,000*‡	.....	140	25	18,165	11	102,868
Utica, N. Y.	15,150	4,500	125	75	19,850	22	103,457
Wilmington, Del.	10,500	2,300	35	40	12,875	12	117,728
Worcester, Mass.	19,000	4,500	250	35	23,785	3	191,927

*Estimated. †Includes Buses. §Includes Buses, Taxicabs and Jitneys. ‡Includes Trucks.
©County Figures.

NOTE: Figures are not available for 15 cities having more than 100,000 population.

45 CITIES HAVING 50,000 TO 100,000 POPULATION

Cities	Motor Cars	Motor Trucks	Taxis or Jitneys	Buses	Total M. V.	Area Sq. Mi.	Population
Allentown, Pa.	5,000	1,000	25	10	6,035	10	87,329
Altoona, Pa.	10,500	1,500	24	11	12,035	4	64,458
Atlantic City, N. J.	5,810	1,610	625	75	8,120	....	52,349
Augusta, Ga.	4,514©	651	.....	.....	5,165	9½	54,264
Berkeley, Cal.	10,525‡	.....	50	14	10,589	10	62,995
Bethlehem, Pa.	5,000	700	50	3	5,753	17	59,628
Canton, O.	15,000	3,000	100	50	18,150	12	99,248
Charleston, S. C.	6,344	800	96	150	7,390	5½	71,245
Chattanooga, Tenn.	16,500	1,500	200	50	18,250	7	65,081
Davenport, Ia.	11,261	1,200	20	3	12,484	16¼	61,262
East St. Louis, Mo.	6,650	2,250	50	50	9,000	....	69,729
El Paso, Texas	12,790©	1,822	400†	.....	15,012	13	96,319
Fort Wayne, Ind.	22,000	12,300	127	16	34,454	16	93,673
Gary, Ind.	8,500	1,500	36	13	10,049	41	69,054
Harrisburg, Pa.	10,000*	2,556	35*	(3) bus lines	.....	10	81,129
Haverhill, Mass.	6,000*‡	.....	40*	.....	6,040	32	57,405
Hoboken, N. J.	6,352	1,860	468	42	8,722	1	68,166
Holyoke, Mass.	7,000	700	50	8	7,758	23	61,094
Huntington, W. Va.	8,000	2,000	50	25	10,075	12½	59,918
Johnstown, Pa.	11,000	1,050	45	12	12,107	6	69,966
Knoxville, Tenn.	13,525	2,080	50	125	15,780	26	88,869
Lancaster, Pa.	7,000*	900	110	5	8,015	4	55,285
Lawrence, Mass.	6,200*	1,800	50	2	8,052	7	97,289
Little Rock, Ark.	12,109	1,960	37	40	14,146	25	70,916
Long Beach, Cal.	40,000	1,100	63	106	41,269	29	69,214
Macon, Ga.	6,033©	883	14	.....	6,930	10	56,331
Manchester, N. H.	.....	.....	.....	.....	10,256	....	81,383
New Britain, Conn.	5,806	50	15	25	5,896	.....	64,867
Niagara Falls, N. Y.	8,000	2,200	125	10	10,335	....	58,082
Pawtucket, R. I.	7,000	500	12	.....	7,512	9	68,799
Peoria, Ill.	.....	.....	.....	.....	11,000	10	79,675
Portland, Me.	9,466	1,494	135	10	11,105	21½	73,129
Racine, Wis.	7,149	1,019	20	6	8,194	8	64,393
Roanoke, Va.	7,615	1,200	126	4	8,945	10	55,502
Rockford, Ill.	10,817	1,253	17	6	11,093	.....	72,419
Sacramento, Cal.	.....	.....	.....	.....	19,987	14	69,950
Saginaw, Mich.	13,500	3,750	65	40	17,355	17	69,754
St. Joseph, Mo.	.....	.....	.....	.....	8,950	14	78,232
San Diego, Cal.	.....	.....	.....	.....	42,762	.....	87,126
Schenectady, N. Y.	17,497	2,447	170	15	20,129	10	98,773
Sioux City, Ia.	13,183	1,209	75	17	14,484	45	79,662
Springfield, Mo.	.....	.....	75	5	13,080	9	61,833
Terre Haute, Ind.	11,000*	2,500*	200	75	13,775	9	69,439
Topeka, Kans.	14,640‖	2,068	.....	.....	16,708	.....	52,555
Wilkes-Barre, Pa.	20,000	1,250	40	65	20,355	.....	76,258

*Estimated. †Includes Buses. §Includes Buses, Taxicabs and Jitneys. ‡Includes Trucks.
‖Includes Taxicabs and Jitneys. ©County Figures.

NOTE: Figures are not available for 31 cities having 50,000 to 100,000 population.

Number of City Traffic Officers in Proportion to Motor Vehicle Registration and Population

Average for All Cities†

Number of persons to every traffic officer	7,150
Number of motor vehicles to every traffic officer	1,470
Per cent of police force assigned to traffic duty	12%

Average for Cities Over 100,000 Population

Number of persons to every traffic officer	7,211
Number of motor vehicles to every traffic officer	1,348
Per cent of police force assigned to traffic duty	11%

Average for Cities 50,000 to 100,000

Number of persons to every traffic officer	10,094
Number of motor vehicles to every traffic officer	1,857
Per cent of police force assigned to traffic duty	17%

Average for Cities 25,000 to 50,000

Number of persons to every traffic officer	4,849
Per cent of police force assigned to traffic duty	18%

†Covering cities in the United States with population over 25,000, excepting the average for motor vehicles per traffic officer which is the average for all cities having over 50,000 population. Motor vehicle registrations were not collected in the 25,000 to 50,000 group.

Status of Federal Aid

32,000 Miles Completed—20,000 Miles in Pro-
Expended to Date—$55,600,000

Texas, Pennsylvania, Illinois, and Ohio Lead

STATES	FISCAL YEARS 1917-1925 PROJECTS COMPLETED PRIOR TO JULY 1, 1924			FISCAL YEAR 1925 PROJECTS COMPLETED SINCE JUNE 30, 1924		
	Total Cost	Federal Aid	Miles	Total Cost	Federal Aid	Miles
Alabama	$4,598,721.63	$2,186,247.54	464.1	$766,721.99	$380,509.23	85.3
Arizona	8,338,365.41	4,287,683.88	527.8	713,173.98	406,825.70	37.5
Arkansas	11,094,751.31	4,424,345.63	944.4	1,637,568.79	688,383.74	68.1
California	12,999,075.03	5,647,148.17	533.7	4,463,144.73	2,347,87.047	177.3
Colorado	8,108,070.31	4,029,898.97	502.6	880,626.15	444,393.39	47.6
Connecticut	3,062,872.02	1,269,558.60	73.6	199,024.56	98,423.00	4.9
Delaware	3,056,832.22	1,007,714.83	72.5	462,969.09	197,825.82	13.8
Florida	961,134.07	461,470.92	48.8	1,415,010.74	681,331.64	25.4
Georgia	17,167,373.32	7,955,805.20	1,214.2	1,587,490,88	765,094.39	138.3
Idaho	8,181,697.92	4,092,395.52	506.8	243,867.57	139,962.62	18.7
Illinois	26 964,706.06	12,279,546.33	804.7	3,588,061.46	1,761,750.91	109.8
Indiana	7,577,444.16	3,655,540.97	225.7	2,427,983.86	1,155,095.08	83.6
Iowa	23,195,778.19	9,237,031.86	1,682 9	1,986,999.59	899,447.75	157.7
Kansas	17,084,136.46	6,043,176.80	502.7	5,234,527.81	2,014,461.76	159.4
Kentucky	10,822,980.31	4,613,947.28	429.4	1,992,917.60	801,849.65	71.8
Louisiana	8,488,463.18	3,686,143.36	661.2	1,358,277.16	662,014.97	127.1
Maine	6,911,058.78	3,299,935.38	230.7	719,052.70	343,786.54	30.3
Maryland	6,760,044.42	3,213,321.78	243.2	358,411.02	179,205.49	16.4
Massachusetts	10,191,202.02	4,105,727.22	232.8	318,961.44	111,675.42	5.2
Michigan	13,434,135.07	6,060,612.23	494.5	715,646.16	349,246.07	29.1
Minnesota	24,037,561.24	9,885,843.07	2,292.0	6,121,718.17	2,724,798.97	421.3
Mississippi	7,888,193.89	3,828,941.39	655.0	1,466,853.97	694,789.48	99.1
Missouri	11,352,027.70	5,245,899.18	803.5	1,326,969.31	654,897.27	100.6
Montana	8,867,279.16	4,384,335.12	791.4	911,797.03	637,863.31	91.3
Nebraska	7,876,337.16	3,714,691.59	1,440.4	382,998.91	178,915.75	27.0
Nevada	3,460,245.52	1,853,624.98	225.6	1,102,421.45	928,932.16	92.2
New Hampshire	3,076,750.19	1,487,867.58	171.3	767,036.04	352,053.17	27.3
New Jersey	7,623,795.12	2,661,531.49	148.7	1,613,608.11	445,405.00	25.8
New Mexico	5,306,286.45	2,758,849.68	714.3	912,328.07	559,290.38	84.7
New York	18,862,742.49	8,257,844.44	572.7	1,675,708.28	673,352.21	48.3
North Carolina	12,567,732.97	6,676,757.66	884.7	3,582,873.35	1,217,143.39	95.9
North Dakota	9,088,973,11	4,418,505.42	1,587.9	1,298,143.59	631,116.50	264.8
Ohio	33,122,751.43	11,879,917.99	962.5	3,530,795.03	1,357,034.24	96.1
Oklahoma	12,986,865,26	5,888,852.03	497.3	2,082,033.66	1,016,086.84	92.1
Oregon	12,082,873.17	5,819,093.79	655.6	1,209,085.39	707,463.39	96.4
Pennsylvania	36,825,248.98	14,114,694.79	729.7	1,675,929.93	740,322.44	39.6
Rhode Island	1,774,397,25	779,227.96	46.0	744,122.20	309,710.13	16.7
South Carolina	9,016,476.73	4,124,045.22	924.4	1,588,812.61	730,417.82	236.3
South Dakota	8,674,597.86	4,244,636.27	989.8	1,957,845.88	1,042,131.02	298.2
Tennessee	6,805,683.35	3,313,936.07	259.6	4,660,828.80	2,300,390.95	161.0
Texas	42,341,998.56	16,190,624.91	3,122.8	5,220,993.23	2,044,321.25	347.0
Utah	3,304,423.75	1,895,805.92	219.0	1,172,195.60	722,070.17	124.1
Vermont	1,922,114.16	942,769.12	74.4	152,908.38	76,454.18	6.3
Virginia	10,035,301.48	4,801,782.43	562.5	1,266,937.26	592,715.20	55.1
Washington	11,384,615.67	5,290,895.45	457.0	927,406.97	405,402.07	46.3
West Virginia	5,489,747.95	2,365,041.53	255.6	1,555,196.35	716,620.21	55.6
Wisconsin	18,753,903.15	7,441,033.57	1,325.3	1,324,722.32	628,581.41	61.7
Wyoming	6,127,625.61	3,078,098.70	687.6	1,531,342.21	935,675.29	148.2
Hawaii						
TOTALS	$549,665,391.27	$237,862,399.82	32,452.9	$82,832,049.26	$38,453,007.84	$4.664.3

*Include projects reported completed (final vouchers not yet paid) totalling

Highway Construction

cess or Approved. $237,850,000 Federal Funds Available for New Projects

in Federal and State Road Expenditures

FISCAL YEAR 1925							
*PROJECTS UNDER CONSTRUCTION			PROJECTS APPROVED FOR CONSTRUCTION			BALANCE OF FEDERAL AID FUND AVAILABLE FOR NEW PROJECTS	STATES
Estimated Cost	Federal Aid Allotted	Miles	Estimated Cost	Federal Aid Allotted	Miles		
$15,433,392.54	$7,486,096.43	849.7	$79,416.15	$39,708.07	0.4	$1,160,401.73	Alabama
1,757,774.35	1,064,861.24	150.4	900,984.42	550,592.13	70.5	1,185,738.05	Arizona
6,453,537.33	2,651,817.83	339.6	922,438.41	429,429.67	74.6	868,423.13	Arkansas
11,194,859.15	5,768,442.68	359.2	491,988.13	287,811.77	1.9	3,042,032.91	California
5,398,940.61	2,937,913.88	212.0	62,776.78	35,229.34	5.8	2,112,445.42	Colorado
3,262,054.48	1,045,804.04	54.1				967,409.36	Conn.
1,316,585.49	504,231.10	33.1				29,758.25	Delaware
8,274,647.58	4,060,548.44	236.4	398,642.71	171,123.94	10.3	912,412.06	Florida
10,735,267.33	5,121,998.59	763.6	820,931.13	379,916.19	39.0	227,082.63	Georgia
2,549,392.79	1,530,324.99	171.9	449,282.31	292,976.38	29.9	622,052.49	Idaho
13,539,290.92	6,724,129.81	469.4	53,063.82	26,531.91	2.0	2,644,533.04	Illinois
14,873,492.00	7,295,074.86	475.3				2,206,681.09	Indiana
7,146,594.05	3,264,649.47	501.9	2,098,815.48	900,900.00	78.9	1,034,107.92	Iowa
14,772,222.66	5,939,501.97	623.5	2,808,795.68	1,295,068.71	151.5	7,079.76	Kansas
8,167,464.30	3,744,306.32	313.4	373,194.00	153,936.89	13.0	1,057,698.86	Kentucky
4,808,164.95	2,389,108.72	284.0	309,676.07	154,838.03	1.6	423,336.92	Louisiana
1,298,297.12	622,267.36	44.6				823,982.72	Maine
2,801,989.31	1,199,249.89	85.3	171,075.41	52,750.00	4.2	4,422.84	Maryland
6,457,832.90	2,053,941.50	105.7	475,794.54	161,122.03	9.2	1,487,313.83	Mass.
15,805,464.85	7,476,927.56	534.6				1,992,986.14	Michigan
6,354,043.15	2,605,800.00	640.7	904,876.83	99,800.00	100.1	2,176.96	Minnesota
8,176,190.45	4,081,320.47	481.7	740,381.06	370,190.51	60.3	556,031.15	Mississippi
23,384,211.22	10,198,390.71	878.0	3,849,064.62	1,104,000.14	141.8	737,000.70	Missouri
2,245,492.02	1,661,934.43	200.5	1,038,200.22	590,707.66	117.2	3,691,576.48	Montana
7,880,402.23	3,857,680.61	831.6	916,341.27	458 ,170.60	109.1	3,241,487.45	Nebraska
4,584,901.22	3,867,650.75	399.1	38,940.11	32,787.34	2.0	207,325.77	Nevada
1,015,014.26	478,844.00	31.6	29,611.26	13,680.00	0.9	102,519.25	New Hamp.
9,024,368.54	2,667,236.24	64.0				815,074.27	New Jersey
6,656,272.99	4,386,862.23	666.1	250,983.39	154,354.77	16.7	729,974.94	New Mex.
30,276,154.84	11,395,122.88	673.4	5,594,338.00	1,567,205.00	101.5	4,814,623.47	New York
8,717,966.68	3,509,481.05	244.5	1,437,527.05	669,797.82	52.1	1,221,071.08	N. Car.
2,994,655.33	1,502,937.30	407.8	295,074.10	147,537.01	27.2	1,663,559.77	N. Dak.
12,676,786.19	4,693,490.80	357.1	1,402,203.38	529,000.00	40.5	1.680,720.97	Ohio
8,041,755.84	3,838,019.43	340.7	2,638,022.45	1,029,676.18	145.9	764,068.52	Oklahoma
2,835,166.45	1,663,370.68	140.9	239,530.50	110,954.29	9.3	205,276.85	Oregon
22,786,424.84	6,088,062.50	374.6	3,143,714.81	887,575.00	58.8	2,770,961.27	Pennsyl.
1,295,720.34	371,918.84	17.9				472,184.07	R. Island
5,447,226.87	2,224,762.61	361.4	963,573.52	175,677.28	91.9	432,643.07	S. Carolina
6,942,471.71	3,349,284.11	929.3	244,890.99	16,103.39	46.1	66,525.21	S. Dakota
11,845,838.75	5,364,964.13	404.1	1,141,855.70	570,929.32	75.3	474,416.53	Tennessee
23,948,858.76	9,700,550.27	1,457.1	5,100,820.57	2,173,554.55	332.0	1,615,162.02	Texas
4,261,594.27	2,806,774.61	245.2	322,811.39	221,330.96	27.1	470,491.34	Utah
2,104,686.81	996,894.18	51.4	53,364.64	26,682.31	1.4	491,179.21	Vermont
9,615,581.51	4,465,484.83	326.1	1,119,227.82	508,734.98	38.6	224,235.56	Virginia
3,439,900.87	1,615,300.00	130.9	265,662.59	132,600.00	12.4	442,480.48	Washington
4,473,244.28	1,945,014.09	143.1	77,099.55	27,448.00	0.4	700,008.17	W. Va.
4,007,979.67	1,933,333.37	166.3	135,408.28	67,703.00	7.2	3,607,799.65	Wisconsin
3,891,144.34	2,423,252.08	264.6				250,424.93	Wyoming
						365,625.00	Hawaii
$394,971,329.14	$176,574,933.88	17837.4	$42,360,399.14	$16,618,135.172	108.6	$55,626,523.29	TOTALS

Estimated cost $109,511,199.84, Federal Aid $48,628,269.57. Miles 4,550.6

State Motor Vehicle Laws

Motor Vehicle Conference Committee Formulates Sound and Equitable Principles That Should Underlie Legislation; and Strives Toward Uniformity

During the year 1924 the Legislatures of 15 of the forty-eight states met in regular or special session. Approximately 600 bills, whose contents were directly or indirectly of serious concern to the production, sale and use of the motor vehicle, were introduced and considered by these legislatures. Many of them were enacted into laws, and became effective during the year.

The subject matter of these laws relate to such important matters as:

1. Special Taxation for Motor Vehicles, including gasoline taxation, increased registration fees, etc.

2. Restrictions on Motor Vehicle Operation, especially size, weight and speed limitations.

3. State Regulation of Motor Vehicles when used as Common Carriers.

4. Licensing of Operators.

5. Compulsory and Forbidden Equipment.

6. Compulsory Liability Insurance as a prerequisite to motor vehicle operation.

7. Certificate of Title—anti-theft.

8. Compulsory Stopping at Grade Crossings.

Obviously, many measures dealing with these subjects are oftentimes based on prejudice, misinformation or lack of information. With a view, therefore, to placing at the disposal of law makers the facts involved, the Motor Vehicle Conference Committee has endeavored to gather information having a bearing upon some of the subjects enumerated and to formulate sound and equitable principles which, in its judgment, should underlie state laws dealing with them.

These principles have then been communicated to the law makers through the medium of Sub-Committees, which the parent body has created in each state of the Union. As a nucleus each state sub-committee contains representatives of the five component organizations constituting the main body, and in addition representatives from state-wide organizations which in each state are directly or indirectly concerned in motor vehicle and highway legislation.

A noteworthy example of the manner in which the views of the Conference Committee have been laid first before its state sub-committees and by them before state lawmakers is the recommendation relating to special taxation for motor vehicles given on the next page.

(Continued on next page)

Sound and Equitable Principles to Control Special Taxation for Motor Vehicles

These principles, set out in a pamphlet entitled "Special Taxation for Motor Vehicles," are as follows:—

1. The state should be the sole special taxing agency—Federal, County and Municipal Governments should be excluded from the field.

2. The motor vehicle tax should be simple in form and distributed in equitable and just proportion between the different types of motor vehicles.

3. No highway should be improved by expenditure of public funds in excess of its earning capacity. The return to the public in the form of economic transportation is the sole measure of the justification for the degree of improvement.

4. All money raised by such special taxes should be placed in the State Motor Vehicle Highway Fund and to secure the best results should be expended under the direction of the State Highway Department.

5. The cost of building and maintaining adequate systems of highways should be distributed in an equitable relation to the benefits derived. These may be summarized as follows:

   (a) Benefits to society in general, such as influence on education, recreation, health, fire prevention, police protection, the national defense, the postal service, living and distribution costs.

   (b) Benefits to definite groups, such as agriculture, manufacture, labor, railroads, mining, forestry and waterways.

   (c) Benefits to property served.

   (d) Benefits to the road user.

6. For the purpose of apportioning costs in relation to benefits received, all highways may be divided into two classes; first, those used by the general motoring public, and second, those which perform a purely local service function.

7. Special motor vehicle taxes should be levied and used only for the improvement and maintenance of highways used by the general public, i. e., for general highway traffic flow lines.

8. The wide variance in valuations, tax burdens, number of motor vehicles in use and the status of highway development in the several states prevent the adoption of any fixed formula as to the proportion of the total costs of highways of general use which should be paid for from motor vehicle funds. Generally speaking, however, these principles may be set forth:

   (a) In states where the income from motor vehicles is insufficient to meet all of the maintenance costs of highways of general motor use without undue burden to the individual motorist, such funds should be applied first to the maintenance of inter-state and state highway systems.

   (b) In states where the income from motor vehicles is sufficient to meet all maintenance costs of highways of general motor use without undue burden to the individual motorist, any surplus should be used for this class of highway reconstruction and administration costs.

   (c) In states where the number of motor vehicles will bring in large sums in excess of maintenance without placing undue burdens upon the individual motorist, such surplus should be used to defray all the costs of maintenance and a substantial share of all of the other costs of highways of general motor use.

   (d) In those states where the motor vehicle income is more than sufficient to meet maintenance costs of highways of general motor use without undue burden to the individual motorist, it may be found advisable to use such surplus for the purpose of defraying all or part of the costs of bond issues to expedite construction of economically desirable motor highways.

9. Roads of a purely local interest, serving only local needs, should be financed out of local revenues obtained from local general taxes. Special assessments on adjoining land to defray a portion of the costs of such roads may be justified.

10. Where extraordinary improvements are undertaken in the vicinity of or serving congested areas of population the increment, if any, in property valuation following the improvement should be drawn upon to defray an equitable portion of the cost.

11. Irrespective of the particular form of special tax of the motor vehicle, whether registration fees or motor fuel taxes, the aggregate amount of these taxes in any one year should not be so great as to impose an undue burden on the individual motorist.

(See following page)

Four Legislative Pamphlets

Four pamphlets on motor vehicle legislation and regulations have been published by, and may be obtained without charge from, the:

Motor Vehicle Conference Committee
366 Madison Avenue, New York City

These booklets are:

1. **Special Taxation for Motor Vehicles**
   Containing digest of state motor vehicle laws, and sound and equitable principles which should underlie such laws.
2. **Governmental Regulation of Motor Vehicle Common Carriers**
   Containing digest of existing regulations, and sound and equitable principles which should be the basis for such regulations.
3. **Governmental Restrictions on Motor Vehicle Sizes, Weights and Speeds**
   Containing existing restrictions in the different states, and recommended restrictions.
4. **Compulsory Automobile Liability Insurance**
   Setting forth the views of the Motor Vehicle Conference Committee on this subject.

Number of Persons Per Passenger Car in the United States

State	Pop. per Pass. Car	State	Pop. per Pass. Car
California	3.38	Maryland	8.04
Iowa	4.29	Connecticut	8.05
Oregon	4.64	Massachusetts	8.28
Nevada	4.76	New Jersey	8.34
Nebraska	4.80	Pennsylvania	8.66
Kansas	4.85	Montana	8.75
South Dakota	4.99	West Virginia	9.20
Colorado	5.02	New York	9.21
Michigan	5.07	New Mexico	9.33
Indiana	5.30	North Carolina	9.78
Minnesota	5.37	Virginia	10.89
Wyoming	5.45	South Carolina	11.89
District of Columbia	5.55	Kentucky	11.92
Ohio	5.69	Louisiana	12.26
Wisconsin	5.77	Tennessee	13.02
North Dakota	5.97	Arkansas	14.49
Washington	6.04	Mississippi	14.66
Vermont	6.18	Georgia	16.53
Oklahoma	6.30	Alabama	17.49
Florida	6.46		
Texas	6.68		
Illinois	6.94		
New Hampshire	7.03		
Missouri	7.04		
Maine	7.19		
Arizona	7.58		
Idaho	7.63		
Delaware	7.93		
Rhode Island	8.01		
Utah	8.02		

Ireland Imports 5,184 Motor Vehicles in Year

Importation of automobiles and automotive products into the Irish Free State during 1924 comprised 4,736 passenger cars, 93 chassis, 355 commercial vehicles, and 149 tractors. Total value of automotive imports into that country for the year was $7,790,053.—*Automobile Topics*

Service Data

(Figures supplied by Chilton Company)

Car Dealer and Independent Service Stations

		Number
Service Stations operated by Car Dealers.....	53%	37,294
Independent Service Stations.....	47%	30,865
		68,159

Shop Equipment of Service Stations in United States

(Based on personal investigation of 1,000 shops)

Service Stations with machine Equipment.....	48%	32,716
Service Stations using only hand tools	52%	35,443
		68,159

Number of Registered Motor Vehicles per Service Station

(Showing increase in business per service unit)

1919—motor vehicles per service station.....	142
1920—motor vehicles per service station.....	163
1921—motor vehicles per service station.....	166
1922—motor vehicles per service station.....	177
1923—motor vehicles per service station.....	192
1924—motor vehicles per service station.....	244
1925—motor vehicles per service station.....	269

11,000 Taxicabs in One Organization

(Figures from "National Taxicab & Motor Bus Journal")

Taxicab growth has been very rapid in the past few years. Since few states or cities classify registrations so as to show taxicabs, complete totals are not available. The member companies of the National Association of Taxicab Owners operate 12,227 motor vehicles, of the following types:

Taxicabs.....	11,348
Limousines.....	170
Touring cars.....	216
Trucks.....	339
Miscellaneous.....	154
Total.....	12,227

Distribution of Dealers in U. S. A.

(From "Automotive Industries")

Cities of over 500,000.....	7%	Cities of 10,000—100,000.....	22%
Cities of 100,000—500,000	9%	Towns under 10,000.....	62%

Organization of

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MARLIN-ROCKWELL BLDG., 366 MADISON AVE., AT 46TH ST., NEW YORK CITY, U. S. A.

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Detroit, Mich.
General Motors Building

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J. D. MOONEY.....General Motors Export Co.
H. B. PHIPPS.....Hudson Motor Car Company
JAY P. RATHBUN.....The White Motor Company
J. J. PALMER.....Dodge Brothers
HOWARD S. WELCH.....The Studebaker Corporation
J. HOWARD TEAGAN.....Hupp Motor Car Corporation
GEORGE F. BAUER, *Secretary*

HAND BOOK COMMITTEE

E. T. STRONG, *Chairman*.....Buick Motor Company
R. C. RUESCHAW.....Reo Motor Car Company
GEORGE A. KISSEL.....Kissel Motor Car Company
H. R. COBLEIGH, *Secretary*

HIGHWAYS COMMITTEE

ROY D. CHAPIN, *Chairman*.....Hudson Motor Car Company
GEORGE M. GRAHAM.....The Chandler Motor Car Company
WILLIAM E. METZGER.....The Columbia Motors Company
EDWARD S. JORDAN.....Jordan Motor Car Company
A. J. BROSSEAU.....Mack Bros. Motor Car Company
PYKE JOHNSON, *Secretary*

INSURANCE COMMITTEE

WILLIAM E. METZGER, *Chairman*.....The Columbia Motors Company
STEWART McDONALD.....Moon Motor Car Company
LIVINGSTON L. SHORT.....Buick Motor Company
R. C. RUESCHAW.....Reo Motor Car Company
H. P. FEDERSPIEL.....Hudson Motor Car Company
MILTON TIBBETTS.....Packard Motor Car Company
A. G. RUMPF.....The Studebaker Corporation
J. S. MARVIN, *Secretary*

LEGISLATIVE COMMITTEE

H. H. RICE, *Chairman*.....Cadillac Motor Car Company
D. C. FENNER.....Mack Bros. Motor Car Company
J. I. FARLEY.....Auburn Automobile Company
DAVID S. LUDLUM.....The Autocar Company
H. P. DOOLITTLE.....International Harvester Company
RUSSELL HUFFMAN, *Secretary*

MEMBERSHIP COMMITTEE

ALVAN MACAULEY, *Chairman*.....Packard Motor Car Company
A. J. BROSSEAU.....Mack Bros. Motor Car Company
R. E. OLDS.....Reo Motor Car Company

(*Continued on following page*)

Organization of National Automobile Chamber of Commerce, Inc.

(*Continued from preceding page*)

MOTOR FUELS COMMITTEE

WALTER P. CHRYSLER, *Chairman*.....Maxwell Motor Corporation
S. E. ACKERMAN.....H. H. Franklin Manufacturing Company
C. F. KETTERING.....Buick Motor Company
C. W. NASH.....The Nash Motors Company
S. A. MILES, *Secretary*

MOTOR TRUCK COMMITTEE

WINDSOR T. WHITE, *Chairman*.....The White Motor Company
O. H. BROWNING.....International Harvester Company
D. C. FENNER.....Mack Bros. Motor Car Company
DAVID S. LUDLUM.....The Autocar Company
M. L. PULCHER.....Federal Motor Truck Company
O. E. STOLL.....General Motors Truck Company
EDWARD F. LOOMIS, *Secretary*

PASSENGER CAR SHOW COMMITTEE

H. M. JEWETT, *Chairman*.....Paige-Detroit Motor Car Company
F. C. CHANDLER.....The Chandler Motor Car Company
CHARLES D. HASTINGS.....Hupp Motor Car Corporation
S. A. MILES, *Manager*

PASSENGER CAR STANDARDS COMMITTEE

N. E. WAHLBERG, *Chairman*.....The Nash Motors Company
H. T. THOMAS.....Reo Motor Car Company
E. A. DEWATERS.....Buick Motor Company

PATENTS COMMITTEE

C. C. HANCH, *Chairman*.....H.C. S. Cab Manufacturing Company
A. J. BROSSEAU.....Mack Bros. Motor Car Company
H. M. JEWETT.....Paige-Detroit Motor Car Company
JAMES MCEVOY.....Chevrolet Motor Company
A. J. CHANTER.....The Studebaker Corporation
R. A. BRANNIGAN, *Department Manager*

SERVICE COMMITTEE

ALVAN MACAULEY, *Chairman*.....Packard Motor Car Company
F. A. BONHAM.....Durant Motors, Incorporated
A. B. CUMNER.....The Autocar Company
W. M. WARNER.....Cadillac Motor Car Company
F. J. WELLS.....The Pierce-Arrow Motor Car Company
H. R. COBLEIGH, *Secretary*

TAXATION COMMITTEE

H. H. RICE, *Chairman*.....Cadillac Motor Car Company
DAVID S. LUDLUM.....The Autocar Company
C. C. HANCH.....H. C. S. Cab Manufacturing Company
GEORGE M. GRAHAM.....The Chandler Motor Car Company
F. J. HAYNES.....Dodge Brothers
PYKE JOHNSON, *Secretary*

TRAFFIC COMMITTEE

WILLIAM E. METZGER, *Chairman*.....The Columbia Motors Company
A. T. WATERFALL.....Dodge Brothers
F. C. CHANDLER.....The Chandler Motor Car Company
A. H. SWAYNE.....General Motors Corporation
WALTER P. CHRYSLER.....Maxwell Motor Corporation
J. S. MARVIN, *Department Manager*

TRAFFIC PLANNING AND SAFETY COMMITTEE

GEORGE M. GRAHAM, *Chairman*.....The Chandler Motor Car Company
A. B. C. HARDY.....Olds Motor Works
EDWARD S. JORDAN.....Jordan Motor Car Company
ALVAN MACAULEY.....Packard Motor Car Company
GEORGE H. PRIDE.....The Autocar Company
JOHN C. LONG, *Secretary*

TRUCK STANDARDS COMMITTEE

D. C. FENNER, *Chairman*.....Mack Bros. Motor Car Company
H. E. DERR.....International Harvester Company
F. A. WHITTEN.....General Motors Truck Company
E. M. STERNBERG.....Sterling Motor Truck Company
B. B. BACHMAN.....The Autocar Company

REPRESENTATIVES IN CHAMBER OF COMMERCE OF U. S. A.

A. J. BROSSEAU.....Mack Bros. Motor Car Company
GEORGE M. GRAHAM.....The Chandler Motor Car Company

REPRESENTATIVES ON NATIONAL INDUSTRIAL CONFERENCE BOARD

A. J. BROSSEAU.....Mack Bros. Motor Car Company
ALFRED H. SWAYNE.....General Motors Corporation

REPRESENTATIVE ON HIGHWAY EDUCATION BOARD

ROY D. CHAPIN.....Hudson Motor Car Company

EDUCATIONAL DEPARTMENT

JOHN C. LONG, *Department Manager*
O. P. PEARSON, *Statistician*

FIELD REPRESENTATIVE

WALTON SCHMIDT

WASHINGTON REPRESENTATIVE
PYKE JOHNSON

DETROIT REPRESENTATIVE
KENNETH A. MOORE

Members of National Automobile

PASSENGER CAR

Trade Name of Car	*Members*	*Address*
Anderson	Anderson Motor Company	Rock Hill, S. C.
Apperson	Apperson Bros. Automobile Company	Kokomo, Ind.
Auburn	Auburn Automobile Company	Auburn, Ind.
Brewster	Brewster & Company	Long Island City, N. Y.
Buick	Buick Motor Company	Flint, Mich.
Cadillac	Cadillac Motor Car Company	Detroit, Mich.
Case	J. I. Case T. M. Company	Racine, Wis.
Chandler	Chandler Motor Car Company	Cleveland, Ohio
Checker	Checker Cab Mfg. Co.	Kalamazoo, Mich.
Chevrolet	Chevrolet Motor Company	Detroit, Mich.
Chrysler	Chrysler Motor Co.	Detroit, Mich.
Cleveland	Cleveland Automobile Company	Cleveland, Ohio
Cole	Cole Motor Car Company	Indianapolis, Ind.
Columbia	Columbia Motors Company	Detroit, Mich.
Cunningham	Jas. Cunningham Son & Company	Rochester, N. Y.
Davis	Geo. W. Davis Motor Car Company	Richmond, Ind.
Dodge Brothers	Dodge Brothers	Detroit, Mich.
Dorris	Dorris Motor Car Company	St. Louis, Mo.
duPont	duPont Motors, Inc	Moore, Pa.
Durant	Durant Motor Co. of Michigan	Lansing, Mich.
Elcar	Elcar Motor Company	Elkhart, Ind.
Essex	Essex Motors	Detroit, Mich.
Flint	Locomobile Company of America	Bridgeport, Conn.
Franklin	H. H. Franklin Manufacturing Company	Syracuse, N. Y.
Gardner	Gardner Motor Company	St. Louis, Mo.
Gray	Gray Motor Corporation	Detroit, Mich.
Haynes	Haynes Automobile Company	Kokomo, Ind.
H. C. S.	H. C. S. Cab Manufacturing Company	Indianapolis, Ind.
Hertz	Yellow Cab Mfg. Company	Chicago, Ill.
Hudson	Hudson Motor Car Company	Detroit, Mich.
Hupmobile	Hupp Motor Car Corporation	Detroit, Mich.
Jewett	Paige-Detroit Motor Car Company	Detroit, Mich.
Jordan	Jordan Motor Car Company	Cleveland, Ohio

Chamber of Commerce, Inc.

MANUFACTURERS

Trade Name of Car	*Members*	*Address*
Kissel	Kissel Motor Car Company	Hartford, Wis.
Lexington	Lexington Motor Company	Connersville, Ind.
Lincoln	Lincoln Motor Company	Detroit, Mich.
Locomobile	Locomobile Company of America	Bridgeport, Conn.
McFarlan	McFarlan Motor Corp	Connersville, Ind.
Marmon	Nordyke & Marmon Company	Indianapolis, Ind.
Maxwell	Maxwell Motor Corporation	Detroit, Mich.
Mercer	Mercer Motors Company	Trenton, N. J.
Moon	Moon Motor Car Company	St. Louis, Mo.
Nash	Nash Motors Company	Kenosha, Wis.
Oakland	Oakland Motor Car Company	Pontiac, Mich.
Oldsmobile	Olds Motor Works	Lansing, Mich.
Overland	Willys-Overland Company	Toledo, Ohio
Packard	Packard Motor Car Company	Detroit, Mich.
Paige	Paige-Detroit Motor Car Company	Detroit, Mich.
Peerless	Peerless Motor Car Company	Cleveland, Ohio
Pierce-Arrow	The Pierce-Arrow Motor Car Company	Buffalo, N. Y.
Premier	Premier Motors, Inc	Indianapolis, Ind.
Princeton	Durant Motor Co. of Indiana	Muncie, Ind.
Reo	Reo Motor Car Company	Lansing, Mich.
Rickenbacker	Rickenbacker Motor Company	Detroit, Mich.
Roamer	Roamer Motor Car Company	Kalamazoo, Mich.
Rollin	Rollin Motors Co	Cleveland, O.
Star	Durant Motor Company of New Jersey	Elizabeth, N. J.
Stearns-Knight	F. B. Stearns Company	Cleveland, Ohio
Studebaker	The Studebaker Corporation	South Bend, Ind.
Stutz	Stutz Motor Car Company of America	Indianapolis, Ind.
Velie	Velie Motors Corporation	Moline, Ill.
Westcott	Westcott Motor Car Company	Springfield, Ohio
Wills-St. Claire	Wills St. Claire Company	Marysville, Mich.
Willys-Knight	Willys-Overland Company	Toledo, Ohio
Yellow-Taxicab	Yellow Cab Mfg. Co	Chicago, Ill.

MOTOR TRUCK MANUFACTURERS

Trade Name of Truck	*Members*	*Address*
Acme	Acme Motor Truck Company	Cadillac, Mich.
Am. La France	American La France Fire Engine Co.	Elmira, N. Y.
Atterbury	Atterbury Motor Car Company	Buffalo, N. Y.
Autocar	Autocar Company	Ardmore, Pa.
*Chevrolet	Chevrolet Motor Company	Detroit, Mich.
Clydesdale	Clydesdale Motor Truck Company	Clyde, Ohio
Commerce	Commerce Motor Car Company	Ypsilanti, Mich.
Corbitt	Corbitt Motor Truck Company	Henderson, N. C.
*Cunningham	Jas. Cunningham Son & Company	Rochester, N. Y.
Denby	Denby Motor Truck Company	Detroit, Mich.
Diamond T	Diamond T Motor Car Company	Chicago, Ill.
*Dodge Brothers	Dodge Brothers	Detroit, Mich.
*Dorris	Dorris Motor Car Company	St. Louis, Mo.
Duplex	Duplex Truck Company	Lansing, Mich.
Federal	Federal Motor Truck Company	Detroit, Mich.
Garford	Garford Motor Truck Company	Lima, Ohio
G. M. C.	General Motors Truck Company	Pontiac, Mich.
Graham	Graham Brothers	Evansville, Ind.
*Gray	Gray Motor Corp.	Detroit, Mich.
International	International Harvester Company	Chicago, Ill.
Kelly-Springfield	Kelly-Springfield Motor Truck Co.	Springfield, Ohio
*Kissel	Kissel Motor Car Company	Hartford, Wis.
Kleiber	Kleiber & Company	San Francisco, Cal.
Larrabee-Deyo	Larrabee-Deyo Motor Truck Co., Inc.	Binghampton, N. Y.
Maccar	Maccar Truck Company	Scranton, Pa.
Mack	Mack Bros. Motor Car Company	New York, N. Y.
Mason	Mason Motor Truck Co.	Flint, Mich.
*Maxwell	Maxwell Motor Corporation	Detroit, Mich.
Moreland	Moreland Motor Truck Company	Los Angeles, Cal.
*Nash	Nash Motors Company	Kenosha, Wis.
*Oldsmobile	Olds Motor Works	Lansing, Mich.
*Overland	Willys-Overland Company	Toledo, Ohio
*Pierce-Arrow	Pierce-Arrow Motor Car Company	Buffalo, N. Y.
Rainier	Rainier Motor Corporation	Flushing, N. Y.
*Reo	Reo Motor Car Company	Lansing, Mich.
Republic	Republic Motor Truck Company	Alma, Mich.
Rowe	Rowe Motor Manufacturing Company	Lancaster, Pa.
Sanford	Sanford Motor Truck Company	Syracuse, N. Y.
*Sayers	Sayers & Scovill Company	Cincinnati, Ohio
Schacht	G. A. Schacht Motor Truck Company	Cincinnati, Ohio
Selden	Selden Truck Corporation	Rochester, N. Y.
Service	Service Motors, Inc.	Wabash, Ind.
Standard	Standard Motor Truck Company	Detroit, Mich.
Sterling	Sterling Motor Truck Company	Milwaukee, Wis.

*Manufacturers of passenger cars also.

(*Continued on following page*)

Motor Truck Manufacturers

(*Continued from preceding page*)

Trade Name of Truck	*Members*	*Address*
Stewart	Stewart Motor Corporation	Buffalo, N. Y.
Traylor	Traylor Eng. and Mfg. Company	Cornwells Heights, Pa.
*Velie	Velie Motors Corporation	Moline, Ill.
Walter	Walter Motor Truck Company	New York, N. Y.
Ward	Ward Motor Vehicle Company	Mt. Vernon, N. Y.
White	The White Motor Company	Cleveland, Ohio
*Yellow	Yellow Cab Mfg. Company	Chicago, Ill.

*Manufacturers of passenger cars also.

Farm Families Getting City Comforts

(The following table shows the results of a survey of modern conveniences in the homes of 451 families in four districts of Iowa made by the Bureau of Agricultural Economics, Department of Agriculture)

	OWNER FAMILIES			TENANT FAMILIES		
	Families Reported	Families Having	Per Cent Having	Families Reported	Families Having	Per Cent Having
Automobile	212	197	92.9	239	213	89.1
Telephone	212	180	84.9	239	203	84.9
Power washing machine	211	151	71.6	231	151	65.4
Piano	212	129	60.8	239	93	38.9
Kitchen sink	211	109	51.7	239	86	36.0
Phonograph	212	107	50.5	239	85	35.6
Camera	212	96	45.3	238	74	31.1
Central heating system	212	87	41.0	231	35	15.1
Central lighting system	212	85	40.1	239	33	13.8
Self heating iron	212	77	36.3	239	31	13.0
Bathroom	211	57	27.0	238	29	12.2
Running water	211	56	26.5	238	22	9.2
Indoor toilet	206	52	25.2	238	15	6.2
Sewer system	192	29	15.1	233	9	3.9
Vacuum cleaner	212	18	8.5	234	4	1.7
Fireless cooker	212	6	2.8	239	2	0.8
Laundry sent out	212	2	0.9	238	2	0.8

—From "Motor"

Associations of the Automobile Industry

National Automobile Chamber of Commerce

GENERAL OFFICES: Marlin - Rockwell Building, 366 Madison Avenue, at 46th Street, New York, N. Y.

PRESIDENT: Charles Clifton, Chairman of the Board of Pierce-Arrow Motor Car Company, Buffalo, N. Y.

GENERAL MANAGER: Alfred Reeves.

The National Automobile Chamber of Commerce is the successor of the National Association of Automobile Manufacturers, organized in November, 1900, and of the Automobile Board of Trade.

OBJECT: To serve as a clearing house of research and information on subjects concerning motor transportation, and to represent the automobile industry in all matters where co-operative effort is proper, efficient, and economical.

Its purposes may be illustrated by listing some of its current activities, which are directed by the committee members:

Cross-licenses more than 700 patents.

Manages New York and Chicago National Automobile Shows.

Compiles and issues figures on automobile production.

Holds World Motor Transport Congresses.

Studies railroad rates, and handles freight claims for members; appears in rate cases for automobile industry.

Publishes "Handbook of Automobiles" and "Facts and Figures of the Automobile Industry."

Conducts Regional Motor Transport Conferences.

Advocates improved highways located according to economical needs and properly financed.

Collects data on volume of traffic and causes of accidents, campaigns for improvements, and offers more than 500 prizes annually to school teachers and children for the best lessons and essays on traffic and safety.

Sends representatives to motor transportation meetings abroad.

Acts as contact for the automobile industry with insurance rate makers.

Promotes development of motor car, motor truck, motor bus, and taxicab transportation.

Acts as clearing house for policies affecting foreign trade.

Studies relationship of automobile to other industries.

Holds Automotive Equipment Show and Service Conventions to develop more efficient and economical repair shop practices.

Advocates sound and equitable legislative principles.

Conducts Advertising Conventions for exchange of views in lowering overhead costs.

Studies the place of motor transportation in the general economic status.

Number of members making passenger cars, 65; making motor trucks, 51.

Motor and Accessory Manufacturers Association

GENERAL OFFICES: Fisk Building, 250 West 57th Street, New York.

PRESIDENT: E. P. Chalfant, Gill Mfg. Co., Chicago, Ill.

GENERAL MANAGER: M. L. Heminway.

National organization representing interests of automotive parts and equipment manufacturers. Association has automobile show, credit, educational, export, legislation, and traffic departments. Field secretaries have been appointed to keep in direct touch with members.

National Automobile Dealers' Association

GENERAL OFFICES: 320 North Grand Avenue, St. Louis, Mo.

PRESIDENT: C. E. Gambill, Chicago, Ill.

SECRETARY AND GENERAL MANAGER: C. A. Vane.

Object is promotion of automobile dealer business, constructive publicity on dealer aims, maintenance of high merchandising standards, research on the magnitude of the business, study of markets and dissemination of facts concerning the same, opposition to harmful legislation, support of good legislation, promotion of good roads.

Rubber Association of America

GENERAL OFFICES: 250 West 57th St., New York City.

PRESIDENT: W. O. Rutherford.

SECRETARY AND GENERAL MANAGER: A. L. Viles.

A national trade organization embracing rubber manufacturers, importers,

brokers and dealers in crude rubber, reclaimers and supply manufacturers of the United States and Canada.

Its membership consists of more than three hundred firms, and its object is to promote in all lawful ways the commercial interests of its members, and secure the advantages to be obtained through mutual co-operation, also to stimulate social intercourse among those connected with the rubber industry and commerce and in general for the promotion of the welfare of the rubber industry.

Its work is largely carried on through the media of "Divisions" or "Committees" constituted of the members of the Association engaged in a particular branch of the rubber industry.

Society of Automotive Engineers

GENERAL OFFICES: 29 West 39th St., New York City.

PRESIDENT: H. L. Horning, Waukesha, Wisc.

SECRETARY AND GENERAL MANAGER: Coker F. Clarkson.

Object of the Society is to promote the arts, sciences, standards, and engineering practices connected with the design, construction and utilization of automotive apparatus, of all forms of self-propelled or mechanically propelled mediums for the transportation of passengers or freight, and internal combustion prime-movers. Publications are *Transactions* (semi-annual), *Year Book*, *The Journal* (monthly), and *S. A. E. Handbook*, including *Standards and Recommended Practices* (revised semi-annually). About 500 distinct mechanical and material standards, specifications, mounting dimensions of parts and accessories have been established by S. A. E. Memberhsip over 5,500.

American Automobile Association

NATIONAL HEADQUARTERS: Pennsylvania Ave. at 17th St., N. W., Washington, D. C.

NEW YORK OFFICES: 501 Fifth Ave.

PRESIDENT: Thomas P. Henry, Marquette Building, Detroit, Mich.

TREASURER: W. C. Kirby, 105 West Monroe Street, Chicago, Ill.

SECRETARY: Chas. C. Janes, Southern Hotel, Columbus, Ohio.

GENERAL MANAGER: Ernest N. Smith, Washington, D. C.

Composed of associations and clubs throughout the country and thousands of individual members. The A. A. A. was organized in Chicago, in March, 1902. Its objects, briefly stated are:

To unite in one body all the automobile clubs and individual motorists in the country.

To secure reasonable and just legislation and to aid in proper enforcement of automobile laws and ordinances.

To obtain Local, State and Federal aid in the construction and maintenance of good roads.

To encourage road travel and transportation, and to secure, prepare, and disseminate information relative thereto.

To support sportsmanlike contests and other movements that will advance motoring interests.

To develop service to motorists through clubs.

The A. A. A. is the largest motorists association in the United States and does not operate for personal profit.

Motor Vehicle Conference Committee

OFFICES: Room 1408, Marlin-Rockwell Building, 366 Madison Avenue at 46th Street, New York City.

CHAIRMAN: D. C. Fenner.

SECRETARY: Russell Huffman.

The Motor Vehicle Conference Committee, created the early part of 1920, is composed of representatives from the following organizations: American Automobile Association, Motor and Accessory Manufacturers Association, National Automobile Chamber of Commerce, National Automobile Dealers Association, and the Rubber Association of America.

This committee acts as a clearing house for the legislative problems, which, in increasing numbers, are confronting the individual members of its component organizations.

Automotive Equipment Association

GENERAL OFFICES: 1809-1818 City Hall Square Building, Chicago, Ill.

PRESIDENT: W. T. Morris, Bridgeport, Conn.

EXECUTIVE CHAIRMAN: Wm. M. Webster, Chicago, Ill.

The organization is international in its scope.

OBJECT: To promote and create a friendly and harmonious relation between manufacturers, jobbers, dealers and garage men and all organized effort incident to or connected with the Automotive Industry.

including automobiles, trucks, tractors, air motors, etc.; to encourage legislation, local, State and National, in the advancement of the automotive interests; for the making of better roads; to collect, collate and disseminate information of interest to the trade generally.

Automobile Body Builders Association

GENERAL OFFICES: 1819 Broadway, at 59th Street, New York.

PRESIDENT: James A. Daugherty, Robbins Body Corporation, Indianapolis, Ind.

SECRETARY-TREASURER: Frederick D. Mitchell.

A National Association composed of Automobile Body Builders and makers of automobile body materials and parts, and plant tools and supplies.

Its general aims are to bring automobile bodies to the highest degree of service; to improve the economics position of body builders; to improve trade relations between the makers of automobile body materials and parts and automobile body builders.

For specific service the membership is arranged into groups of those making the same or similar products.

Trailer Manufacturers Association of America

HEADQUARTERS: 116 West 32nd Street, New York, N. Y.

PRESIDENT: H. C. Fruehauf.

FIRST VICE-PRESIDENT: S. E. Liedabrand.

SECOND VICE-PRESIDENT: S. B. Winn.

SECRETARY-TREASURER: Henry M. Wood.

MANAGER: Allan P. Ames.

OBJECTS: To promote the trailer industry; encourage introduction and use of trailers and their accessories; further construction and maintenance of good roads; and aid in securing enactment of uniform laws relating to use of trailers.

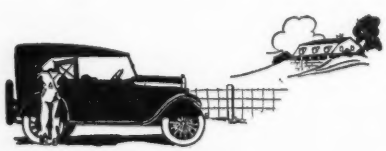
Active members—firms engaged in the the manufacture of trailers used with motor trucks and tractors and passenger cars.

Associate members—firms engaged in the manufacture of trailer parts.

Automobiles Essential in Radio Business

Motor vehicles are the chief means of transportation for radio dealers. Tabulation of replies from 540 radio dealers who responded to a mail query sent to an unselected list brings out the fact that virtually every merchant in this line uses an automobile in his business.

No. of cars owned by 540 radio dealers	698
Per cent owning one or more motor vehicles	99%
Per cent owning more than one car	20%
Average annual mileage	11,000
Per cent reporting 50% or more efficiency gain from car	55%



Type of Motor Vehicles Used:

Touring	32%
Sedan	22%
Roadster	10%
Coupes	14%
Trucks	14%
Coaches	3%

48,138 Car and Truck Dealers in U. S. A.

14% More Than 18 Months Ago—95,711 Establishments in Automotive Retail Trade—58,206 Garages

(Figures compiled from Chilton Trade List, March, 1925)

STATE	Total Dealers	Total Passenger Dealers	Total Truck Dealers	Passenger Car Dealers Exclusively	Truck Dealers Exclusively	Car and Truck Dealers	Garages	Repair Shops Ind. and Dealers' Ser. Stations	Retail Supply Stores and Supply Depts.	Total Retail Trade Names Dups. eliminated
Alabama	302	293	180	122	9	171	383	496	518	703
Arizona	208	200	118	90	8	110	229	280	299	385
Arkansas	368	360	234	134	8	226	466	502	529	713
California	2,349	2,206	969	1,380	143	826	3,192	4,314	3,150	5,786
Colorado	584	553	358	226	31	327	708	829	831	1,087
Connecticut	663	627	271	392	36	235	781	800	595	1,390
Delaware	93	88	58	35	5	53	147	111	146	234
Dist. of Col.	102	89	47	55	13	34	87	111	95	237
Florida	542	503	297	245	39	258	584	755	739	1,003
Georgia	490	456	317	173	34	283	552	865	700	1,091
Idaho	253	248	161	92	5	156	266	329	304	407
Illinois	3,280	3,149	1,598	1,682	131	1,467	3,792	4,368	3,946	6,251
Indiana	1,655	1,602	770	885	53	717	2,163	2,607	2,344	3,632
Iowa	2,056	2,014	1,359	697	42	1,317	2,432	3,028	2,765	3,584
Kansas	1,208	1,165	707	501	43	664	1,907	1,416	1,561	2,562
Kentucky	714	685	369	345	29	340	627	723	717	1,102
Louisiana	377	359	241	136	18	223	390	529	506	659
Maine	484	466	209	275	18	191	509	749	485	948
Maryland	470	441	205	265	29	176	475	590	535	906
Mass.	1,242	1,178	491	751	64	427	1,560	2,153	1,303	3,103
Michigan	1,956	1,913	939	1,017	43	896	2,408	2,286	2,372	2,798
Minnesota	1,821	1,763	1,178	643	58	1,120	2,016	2,390	2,224	2,859
Mississippi	275	268	152	123	7	145	295	297	340	505
Missouri	1,394	1,337	772	622	57	715	2,010	2,046	1,947	3,030
Montana	385	372	217	68	13	204	355	416	422	586
Nebraska	1,100	1,075	717	383	25	692	1,211	1,431	1,367	1,727
Nevada	103	99	57	46	4	53	105	128	120	158
N. Hampshire	284	279	107	177	5	102	414	382	315	616
New Jersey	1,259	1,178	528	731	81	447	1,741	1,885	1,723	2,967
New Mexico	151	147	97	54	4	93	205	213	204	310
New York	3,845	3,629	1,881	1,964	216	1,665	5,838	5,474	5,170	8,800
N. Carolina	754	725	342	412	29	313	581	994	834	1,266
N. Dakota	588	555	388	200	33	355	518	655	664	876
Ohio	3,044	2,918	1,362	1,682	126	1,236	3,542	4,019	3,757	5,852
Oklahoma	771	743	482	289	28	454	889	1,159	1,124	1,490
Oregon	491	471	262	229	20	242	704	911	742	1,113
Pennsylvania	4,056	3,857	1,829	2,225	197	1,632	4,826	4,954	4,945	7,419
Rhode Island	232	214	81	151	18	63	244	354	215	508
S. Carolina	309	301	149	160	8	141	250	437	374	555
S. Dakota	663	628	410	253	35	375	691	806	795	1,010
Tennessee	472	440	252	220	32	220	380	625	548	834
Texas	1,829	1,781	1,003	826	48	955	2,716	2,468	2,707	4,576
Utah	184	178	115	69	6	109	202	260	241	341
Vermont	250	249	142	108	1	141	321	319	323	454
Virginia	699	660	375	324	39	336	554	769	746	1,151
Washington	775	736	419	356	39	380	940	1,250	1,107	1,555
W. Virginia	682	652	324	368	30	294	612	640	683	1,005
Wisconsin	2,145	2,049	1,283	962	96	1,187	2,235	2,362	1,468	3,334
Wyoming	179	173	88	91	6	82	153	198	180	233
U. S.	**48,138**	**46,072**	**24,910**	**21,224**	**2,062**	**22,848**	**58,206**	**65,674**	**59,725**	**95,711**
Canada	2,142	2,079	1,372	770	63	1,309	2,403	2,485	2,378	3,459

INDEX